

# Series Compatible with Secondary Batteries

Series 25A-

New

Copper (Cu)  
and Zinc (Zn)  
**Free**

Compatible with  
a low dew point

**-94°F**  
(-70°C)

Using grease  
compatible with  
a low dew point

**Longer life**

A wide range  
of lineup

**Number of  
models is  
expanded**

New

- 5 port air operated valve: Series 25A-SYA
- Vacuum unit: Series 25A-ZK2
- Electric actuators: Series 25A-LEFS/LEJS/LEY
- Air cylinders: Series 25A-CJ2-Z, 25A-MB-Z, 25A-MGP-Z
- Stainless steel pressure gauge: Series G43, etc. added.

**Compatible with various usage environments  
in each manufacturing process**

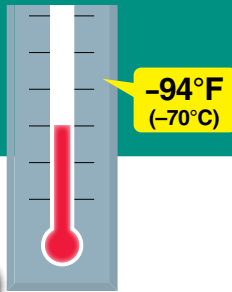


NP-E11-7B

# Series 25A-

**Low dew point**

**Compatible with -94°F (-70°C)**



- Service life and performance have been improved at a low dew point.
  - Using grease compatible with a low dew point.
- (Refer to page 10 for part numbers of the maintenance grease pack.)

**Material**

**Copper (Cu)**

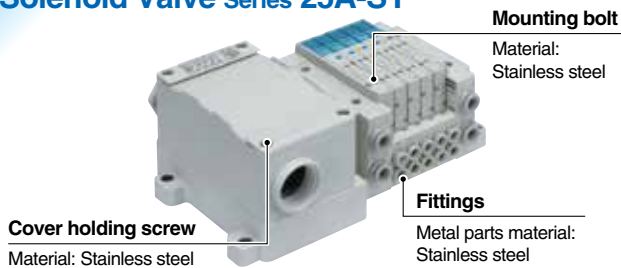
**Zinc (Zn)**

**Not Used**

**Surface Treatment**

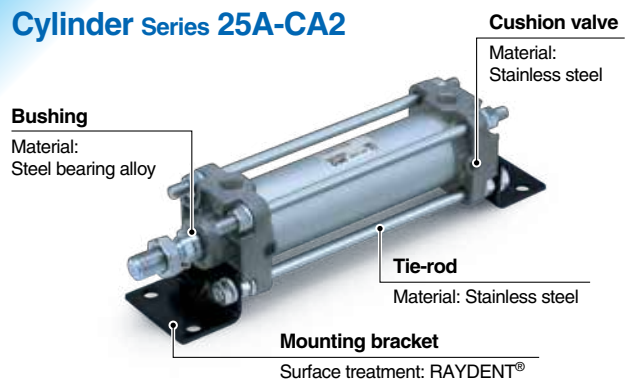
- Electrolytic nickel plating with a copper layer (Electroless nickel plating is used)
- Zinc plating

## Solenoid Valve Series 25A-SY

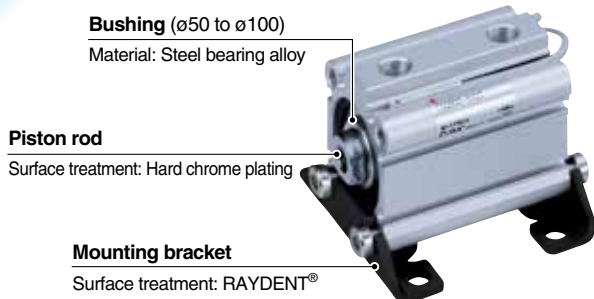


\*1 Coils for solenoid valves, connector pins, and lead wires are made of copper.  
\*2 Manifold terminal block, wiring parts, connector metal parts and printed circuit board are made of copper.

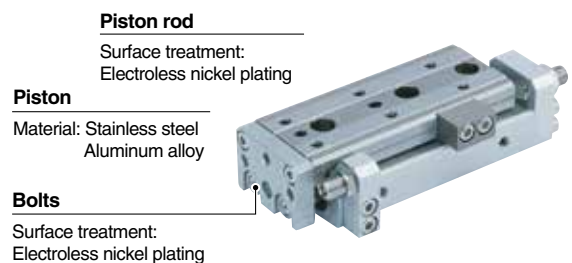
## Cylinder Series 25A-CA2



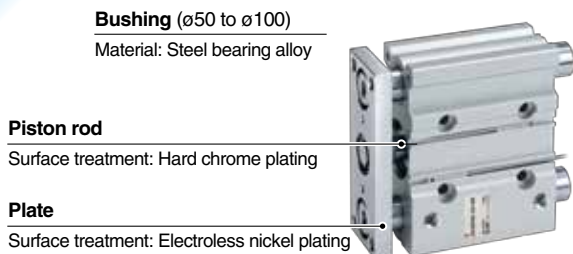
## Cylinder Series 25A-CQ2



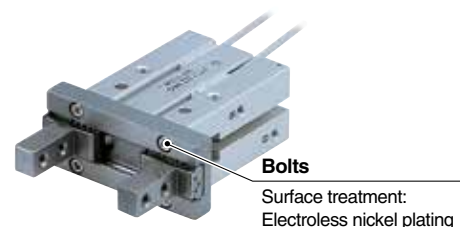
## Cylinder Series 25A-MXQ



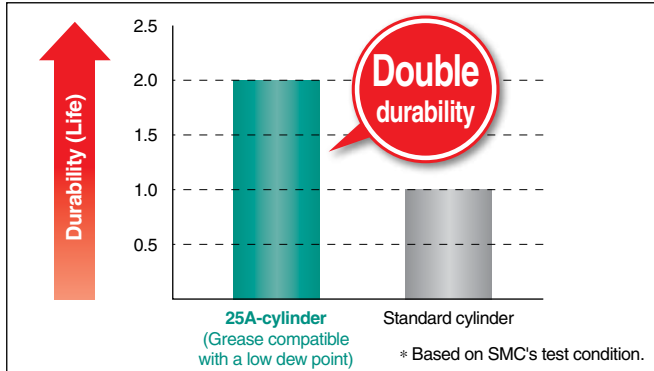
## Cylinder Series 25A-MGPM



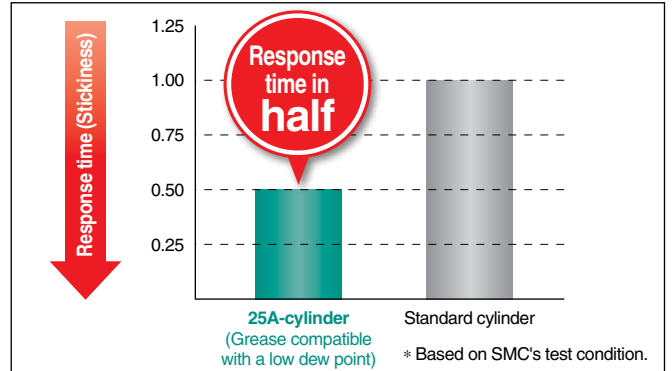
## Air Gripper Series 25A-MHZ



## ● Durability comparison (Air cylinder)



## ● Comparison of cylinder response times after being pressurized and stored



### Filter Series 25A-AF

#### Rod (AF20 to 60)

Material: Stainless steel

#### Bowl guard (AF30 to 60)

Surface treatment:  
Electrodeposition coating

#### Drain plug (AF30 to 60)

Material: Stainless steel



### Regulator Series 25A-AR

#### Valve, Stem

Material: Stainless steel

#### Adjusting spring, Screw

Surface treatment:  
Electroless nickel plating



### 2-Color Display High-Precision Digital Pressure Switch Series 25A-ZSE30A/25A-ISE30A



#### Port thread

Material: Stainless steel

\* Lead wires are made of copper.

### Auto Switch Series D-M9□-900



#### Mounting screw

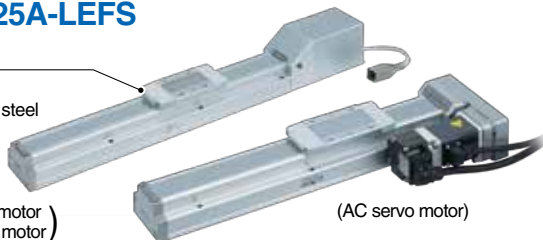
Material: Stainless steel

\* Lead wires are made of copper.

### Slider Type/Ball Screw Drive Series 25A-LEFS

#### Bolts

Material:  
Stainless steel

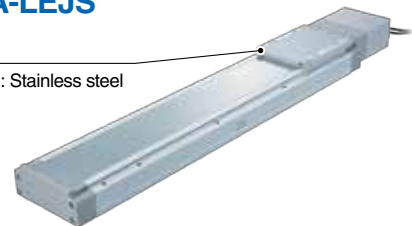


\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

### High Rigidity Slider Type/Ball Screw Drive Series 25A-LEJS

#### Bolts

Material: Stainless steel



\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

### Rod Type Series 25A-LEY

#### Bushing

Material:  
Steel bearing alloy

#### Bolts

Material: Stainless steel



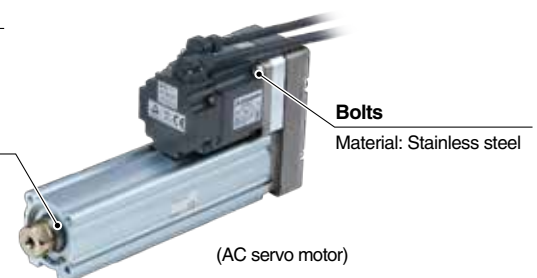
(Step motor Servo motor)

#### Bushing

Material:  
Steel bearing alloy

#### Bolts

Material: Stainless steel



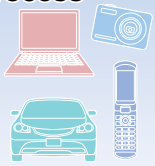
(AC servo motor)

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.



# Secondary Battery Manufacturing Process and Applicable Products

Secondary battery manufacturing process



Applicable devices

## Electrode production

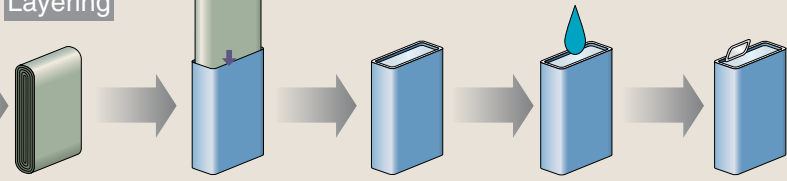
Weighing	Kneading	Coating
Dry	Roll	Press

Anode plate separator  
Cathode plate separator

Winding Layering



Liquid injection



Dust Explosion proof Low friction

Low dew point Vacuum Contactless Condensation Static electricity Transfer

## Low dew point grease

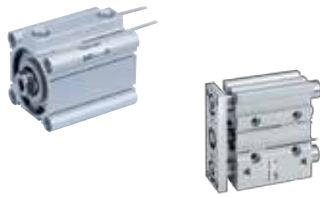
## Copper (Cu) Zinc (Zn) Free Series 25A-

(Refer to pages 5 to 10 for the applicable products.)

### Directional Control Valves



### Air Cylinders



### Rotary Actuators/Air Grippers



### Vacuum Equipment



### Air Preparation Equipment/Pressure Control Equipment



### Detection Switches/Auto Switches



### Fluid Control Equipment



### Electric Actuators



Made to Order

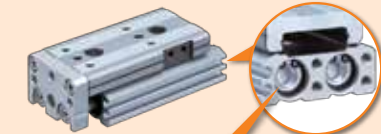
## Low dew point grease

## Copper (Cu) Zinc (Zn) Free

Corrosion resistant materials → Improved corrosion resistance

### Air Slide Table

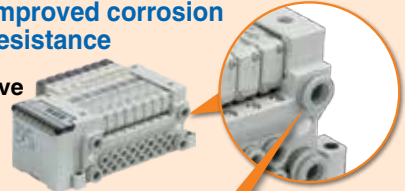
Series 25A-MXQ  
Series 25A-MXS  
Changed material of the inner part of the cylinder to that with high corrosion resistance



	After change	Before change
Head cap	Aluminum	Synthetic resin

### Solenoid Valve

Series 25A-VQ



	After change	Before change
One-touch fitting	Release bushing	PP
		POM

## Copper (Cu) Zinc (Zn) Free

# Standard Products

(Refer to pages 5 to 10 for the applicable products.)

### Fittings



### Flow Control Equipment



### Vacuum Equipment



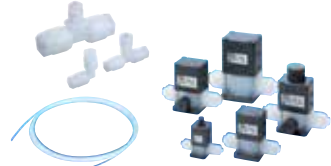
### Clean Air Filter



### Pressure Gauge

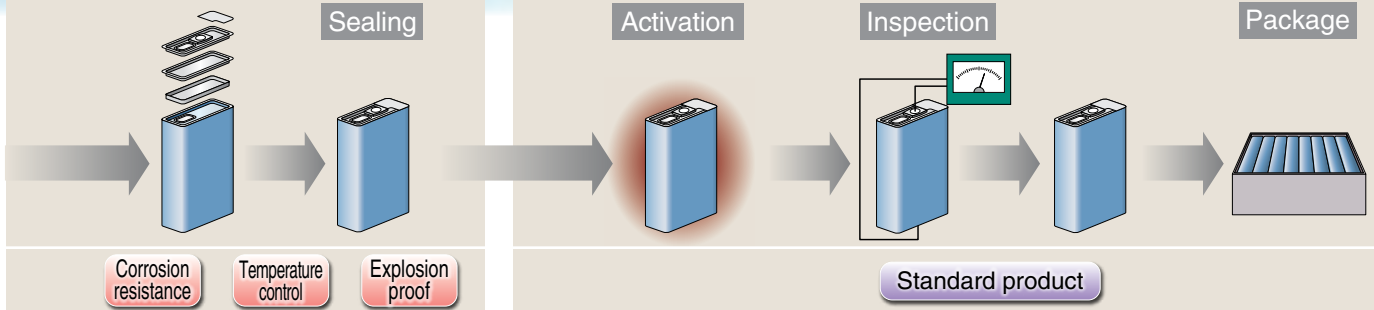


### Fluoropolymer Products





## Inspection/Packaging



## Measures against dust Standard Products

### Cylinder with Stable Lubrication Function (Lube-retainer)

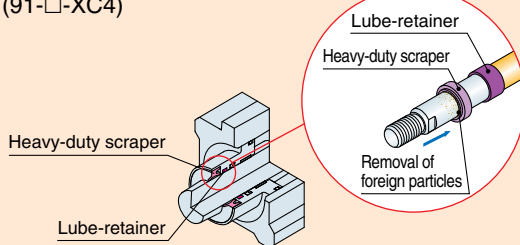
Service life has been further improved with a Lube-retainer in micro-powder (10 to 100  $\mu\text{m}$ ) environments. Overall length and mounting are the same as those of the standard model. (Except for some sizes)

#### Applicable Cylinders

Air Cylinder Series <b>CM2</b> □M	Air Cylinder Series <b>CG1</b> □M	Air Cylinder Series <b>CA2</b> □M	Compact Cylinder/Compact Type Series <b>CQS</b> □M
Compact Cylinder Series <b>CQ2</b> □A	Air Slide Table Series <b>MXQ</b> □AM	Compact Guide Cylinder Series <b>MGP</b> □M	Dual Rod Cylinder Series <b>CXS</b> □M

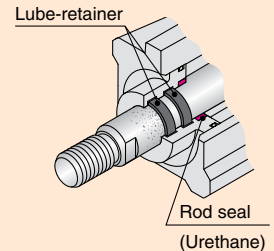
Made to Order

#### Lube-retainer + Heavy-duty scraper (91-□-XC4)



#### Double Lube-retainer + Urethane seal (-X2163)

Changed material of rod seal to urethane (to improve durability)

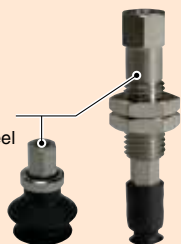


Made to Order

#### Vacuum Pad

- Series ZPT
- Series ZP

Changed to stainless steel



#### Aluminum High Vacuum Angle Valve

- Series XL□

U nut material changed to stainless steel, bearing material changed to POM (Internal parts)



## Explosion proof

### Compatible with a reed auto switch (without a light) in explosion proof environment

Compatible with a reed auto switch when being connected to a barrier relay




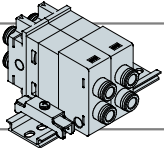




Reed auto switch  
(Non indicator light type including D-A90)







Barrier relay  
(Provided by customer)

# Series Variations Compatible with Secondary Batteries

Series	Materials not used		
	Copper (Cu)	Zinc (Zn)	Stainless Steel 316
25A-	●	●	
25-	●		
90-	●	●	●

## Series 25A- Applicable Products

Description	Series 25A-		25-	90-		
	Model (Type)	Page no.				
Directional Control Valves	5 Port Solenoid Valve 	25A-SY5000 (Plug-in connector connecting base)	P.13	-	-	
		25A-SY5000, 7000	P.34	●	-	
		25A-VQ2000, 4000 (W)	P.41	-	-	
		25A-SQ2000	P.54	-	-	
		25A-VQZ1000	P.59	-	-	
	Separate Type Double Check Block 	25A-VQ1000 (Double check block)	P.63	-	●	
		25A-VQ2000 (Double check block)	P.63	●	●	
	3 Port Solenoid Valve 	25A-VP342, 542, 742 (Body ported)	P.64	-	●	
		25A-VP344, 544, 744 (Base mounted)	P.65	-	●	
		VP500/700 (Safety standards ISO13849-1)	*2	-	-	
		25A-VT317	P.66	-	●	
		25A-VG342	P.67	-	●	
	5 Port Air Operated Valve 	25A-SYA5000, 7000	P.68	-	-	
	Finger Valve 	25A-VHK2, 3	P.69	-	●	
	Air Cylinders	Air Cylinder 	25A-CJ2-Z (Standard) <span style="color: red;">New</span>	P.71	-	-
			25A-CJ2 (Standard)	P.72	●	●
			25A-CM2 (Standard)	P.73	●	-
			CBM2 (With end lock)	*2	-	-
25A-CG1 (Standard)			P.74	●	●	
CBG1 (With end lock)			*2	-	-	
25A-MB-Z (Standard) <span style="color: red;">New</span>			P.75	-	-	
25A-MB (Standard)			P.76	●	-	
MBB (With end lock)			*2	-	-	

Description		Series 25A-		25-	90-
		Model (Type)	Page no.		
Air Cylinder		25A-CA2-Z (Standard)	P.77	-	●
		25A-CS2 (Standard)	P.78	-	-
Free Mount Cylinder		25A-CU (Standard)	P.79	-	●
		25A-CUK (Non-rotating rod)	P.80	-	-
Compact Cylinder		25A-CQS (Standard)	P.81	●	●
		25A-CQS□S (Anti-lateral load)	P.82	-	●
		25A-CQ2-Z (Standard)	P.83	●	●
		25A-CQ2-Z (Large bore size)	P.84	-	-
		25A-CQ2-Z (Long stroke)	P.85	-	-
		25A-CQ2□S-Z (Anti-lateral load)	P.86	-	-
		CBQ2 (With end lock)	*2	-	-
Mechanically Jointed Rodless Cylinder		25A-MY1B (Basic)	P.87	-	●
		25A-MY1H (Linear guide)	P.88	-	●
		25A-MY2H (Linear guide)	P.89	-	●
Magnetically Coupled Rodless Cylinder		25A-CY3B (Basic)	P.90	-	-
		25A-CY3R (G) (Direct mount)	P.91	-	-
Air Slide Table		25A-MXS (Cross roller guide)	P.92	-	●
		25A-MXQ (Recirculating linear guide)	P.93	●	●
		25A-MXW (Recirculating linear guide)	P.94	-	-
Compact Guide Cylinder		25A-MGPM-Z (Slide bearing) <span style="color:red">New</span>	P.95	-	-
		25A-MGPL-Z (Ball bushing bearing) <span style="color:red">New</span>	P.95	-	-
		25A-MGPM (Slide bearing)	P.96	●	●
		25A-MGPL (Ball bushing bearing)	P.96	●	●
Slide Unit		25A-CXWM (Slide bearing)	P.97	-	-
Dual Rod Cylinder		25A-CXSM (Slide bearing)	P.98	●	-
		25A-CXSL (Ball bushing bearing)	P.98	●	-
Guide Cylinder		25A-MGGL (Ball bushing bearing)	P.99	-	●
Cylinder with Lock		CNG□N	*2	●	-
		CNA2□N	*2	●	-
Compact Cylinder with Lock		CLQ	*2	●	-
Stopper Cylinder		RSQ	*2	●	●
Heavy Duty Stopper Cylinder		RSH	*2	●	●
		RS2H	*2	●	-

Air Cylinders

\*2 Consult with your SMC sales representative.



Description		Series 25A-		25-	90-
		Model (Type)	Page no.		
Related Products	Shock Absorber 	25A-RB (Standard)	P.100	●	●
		25A-RBC (Standard)	P.100	●	●
		25A-RJ (Soft type)	P.101	-	-
		25A-RJ (Short stroke type)	P.102	-	-
	Floating Joint 	25A-JA (Standard/80, 100 only)	P.103	-	●
		25A-JB (For compact cylinder)	P.103	-	●
		25A-JS (Stainless steel)	P.103	-	●
	Simple Joint for CQ2 	YA (Type A mounting bracket)	*1	-	-
		YB (Type B mounting bracket)	*1	-	-
		YU (Joint)	*1	-	-
Rotary Actuators		25A-MSUB (Vane style)	P.104	-	-
		25A-MSQ (Rack & Pinion)	P.105	-	●
		25A-MSQ (Rack & Pinion/With vacuum port)	P.105	-	-
Air Grippers		25A-MHZ2 (Standard)	P.107	●	-
		25A-MHZL2 (Long stroke)	P.108	-	-
		25A-MHZJ2 (With dust cover)	P.109	-	●
		25A-MHZL2 (Long stroke/With dust cover)	P.109	-	-
		25A-MHF2 (Low profile type)	P.110	●	-
		25A-MHL2 (Wide type)	P.111	●	●
		25A-MHS□ (3-finger, 4-finger)	P.112	-	●
		25A-MHSJ3 (3-finger/With dust cover)	P.113	-	-
		25A-MHY2 (180° Angular style)	P.114	-	-
Vacuum Equipment		25A-ZK2 (Vacuum unit) Single unit only	P.115	-	-
		25A-ZQ (Ejector unit) Single unit/Manifold	P.119	-	●
		25A-ZQ (Vacuum pump unit) Single unit/Manifold	P.123	-	●
		ZH (Body ported)	*1	-	-
	In-line Air Filter 	ZFC (With One-touch fittings)	*1	-	-
		Air Suction Filter 	ZFC (With One-touch fittings/In-line type)	*1	-

\*1 Standard products: Standard products are copper (Cu) and zinc (Zn) free. Refer to the WEB catalog or the Best Pneumatics for details.



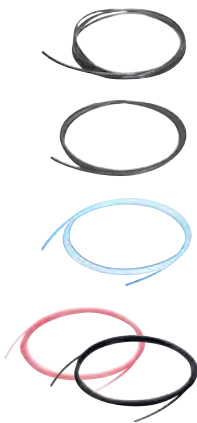


Description		Series 25A-		25-	90-	
		Model (Type)	Page no.			
Vacuum Equipment	Vacuum Pad 	ZP□	*2	-	●	
		ZP (Pad only)	*1	-	●	
	Non-contact Gripper		XT661	*2	-	-
	Adsorption Plate		SP	*1	-	-
	Vacuum Regulator		IRV (Standard)	*2	-	-
Air Preparation Equipment	Membrane Air Dryer		25A-IDG	P.127	-	●
	Air Preparation Filter		25A-AFF (Main line filter)	P.129	-	●
			25A-AM (Mist separator)	P.130	-	●
			25A-AMD (Micro mist separator)	P.131	-	●
			25A-AMH (Micro mist separator with pre-filter)	P.132	-	-
Clean Air Filters	Clean Air Filter 	SFD100	*1	-	-	
		SFD200	*1	-	●	
		25A-AMP (Exhaust cleaner for clean rooms)	P.133	-	●	
		SFE (Exhaust cleaner for clean rooms)	*1	-	-	
Air Filters/Pressure Control Equipment	Air Filter Separator		25A-AF	P.134	●	●
			25A-AFM (Mist separator)	P.135	-	●
			25A-AFD (Micro mist separator)	P.135	-	●
	Regulator		25A-AR	P.136	●	-
			25A-AR□□K (With backflow function)	P.136	●	●
			25A-AW	P.137	-	●
			25A-AW□□K (With backflow function)	P.137	-	●
			25A-IR (Precision regulator)	P.138	-	●
			25A-ITV (Electro-pneumatic regulator)	P.139	-	●
			CB-97XH (Residual pressure indicator)	*1	-	-
	Booster Regulator		25A-VBA	P.140	-	-
			25A-VBAT (Air tank)	P.141	-	-
	Pressure Gauge		G46-X2 (Threaded portion: Electroless nickel plating)	*4	-	-
G46-X3 (Bourdon tube: Stainless steel) (With limit indicator)			*3	-	-	
G43-10-01-X300 (Stud, Bourdon tube, Internal parts: Stainless steel 304)			*1	-	-	

\*1 Standard products: Standard products are copper (Cu) and zinc (Zn) free. Refer to the **WEB catalog** or the Best Pneumatics for details.

\*2 Consult with your SMC sales representative.






\*3 Wetted parts are copper (Cu) and zinc (Zn) free. Copper and zinc are used for parts other than wetted parts.

\*4 Copper (Cu) is not exposed outside. Copper (Cu) is used for wetted parts.

Description		Series 25A-		25-	90-	
		Model (Type)	Page no.			
Fittings/Flow Control Equipment	Quick Exhaust Valve		25A-AQ240F, 340F (Built-in One-touch fittings)	P.142	-	●
	Check Valve		25A-AKH (With One-touch fittings)	P.143	-	●
	Stainless Steel Speed Controller		AS-FG (Elbow/Universal/In-line type)	*1	-	-
	Speed Controller with Indicator		AS-FSG (Elbow type)	*1	-	-
	Stainless Steel Fittings		KG (One-touch fittings)	*1	●	●
			KPG (One-touch fittings)	*1	-	●
			KQG2 (One-touch fittings)	*1	-	-
			KFG2 (Insert fittings)	*1	-	-
			MS (Miniature fittings)	*1	-	-
			KKA (S Couplers stainless steel type)	*1	-	-
Tubing		T (Nylon)	*1	-	-	
		TS (Soft nylon)	*1	-	-	
		TU (Polyurethane)	*1	-	-	
		TA□ (Antistatic)	*1	-	-	
		TL (Fluoropolymer)	*1	-	-	
		TH (FEP)	*1	-	-	
		TD (Soft fluoropolymer)	*1	-	-	
		TPS (Soft polyolefin)	*1	-	-	
		IDK (Moisture control tubing)	*1	-	-	
Detection Switches	Pressure Switch		25A-ZSE30A/ISE30A	P.144	●	-
			25A-ZSE40A/ISE40A	P.145	-	-
			25A-ZSE80/ISE80	P.146	-	-
	Flow Switch		25A-PFM7	P.147	-	●
			25A-PF3W (For water)	P.148	-	-
			25A-PF3W (For PVC piping)	P.149	-	-

\*1 Standard products: Standard products are copper (Cu) and zinc (Zn) free. Refer to the WEB catalog or the Best Pneumatics for details.



Description	Series 25A-		25-	90-	
	Model (Type)	Page no.			
Auto Switches	Solid State Auto Switch 	D-M9□□	P.161	●	●
		D-Y7□□	P.161	●	●
		D-K59	P.161	-	-
	Reed Auto Switch 	D-Z80L	P.161	●	●
		D-A90L	P.161	-	-
Fluid Control Equipment	Direct Operated 2 Port Solenoid Valve 	25A-VX2	P.150	-	-
High Vacuum Equipment	Aluminum High Vacuum Angle Valve 	XLA (Normally closed)	*2	-	-
		XLC (Double acting)	*2	-	-
Electric Actuators	Electric Actuator 	<b>New</b> 25A-LEFS (Slider type/Ball screw drive/Step motor, Servo motor)	P.153	-	-
		<b>New</b> 25A-LEFS (Slider type/Ball screw drive/AC servo motor)	P.155	-	-
		<b>New</b> 25A-LEJS (High rigidity slider type/Ball screw drive/AC servo motor)	P.156	-	-
		<b>New</b> 25A-LEY (Rod type/Step motor, Servo motor)	P.157	-	-
		<b>New</b> 25A-LEY (Rod type/AC servo motor)	P.159	-	-

\*2 Consult with your SMC sales representative.

### Grease pack for Series 25A\*

#### Applicable models

\* Air cylinders (Except guide unit). For other models, consult with your SMC sales representative.

Grease pack part number	Quantity
GR-D-005	5 g
GR-D-010	10 g
GR-D-100	100 g

Contained in a plastic container.

# Related Products

Consult with SMC for "Copper (Cu) and Zinc (Zn) Free" products.

## 1 Antistatic Equipment

Vacuum

Static electricity

Antistatic performance achieved through conductive measures for a reduction in static-related trouble.

**Actuators** · Antistatic Air Cylinder (Made to Order) ..... Series *CM2-X1051*

### Vacuum Equipment

· Vacuum Pad ..... Series *ZP*

### Fittings and Tubing

- Antistatic One-touch Fittings ..... Series *KA*
- Miniature Fittings/Stainless Steel 316 ..... Series *MS*
- Miniature Fittings ..... Series *M*
- Antistatic Tubing ..... Series *TA*□

### Flow Control Equipment

· Antistatic Speed Controller (Made to Order) ..... Series *AS-X260*



## 2 Static Electricity Elimination Equipment

Static electricity

Ions generated by corona discharge eliminate (neutralize) static electricity.

- Ionizer/Bar Type ..... Series *IZS4*□
- Ionizer ..... Series *IZS31*
- Ionizer/Nozzle Type ..... Series *IZN10*
- Ionizer/Fan Type ..... Series *IZF10*

### Measurement Equipment

Measures the electrostatic potential.

- Electrostatic Sensor ..... Series *IZD10/IZE11*
- Handheld Electrostatic Meter ..... Series *IZH10*



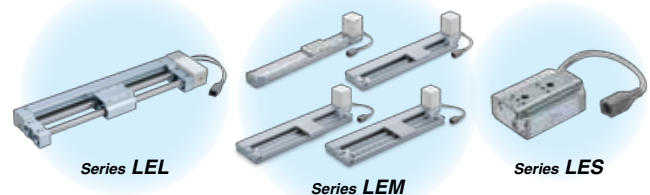
## 3 Temperature Control Equipment

- Thermo-chiller/Compact Type ..... Series *HRS*



## 4 Electric Actuators

- Electric Actuator/Guide Rod Slider ..... Series *LEL*
- Electric Actuator/Compact Slider Type ..... Series *LEM*
- Electric Slide Table ..... Series *LES*
- Electric Actuator/Miniature Rod Type /Miniature Slide Table Type ..... Series *LEPS/LEPY*
- Electric Rotary Table ..... Series *LER*
- Electric Gripper ..... Series *LEH*□
- Electric Actuator/Slider Type ..... Series *LEFB*







Type 10  
Side Ported

Type 11  
Bottom Ported

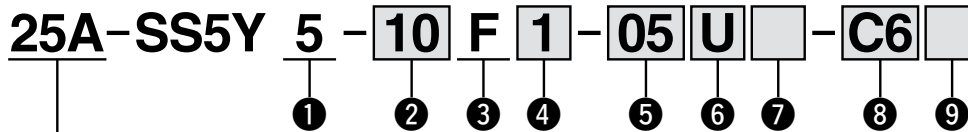
# Plug-in Connector Connecting Base

D-sub Connector

## Series 25A-SY5000



### How to Order Manifold



Series compatible with secondary batteries

#### 1 Series

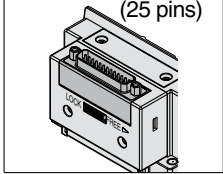
5	SY5000
---	--------

#### 2 Type

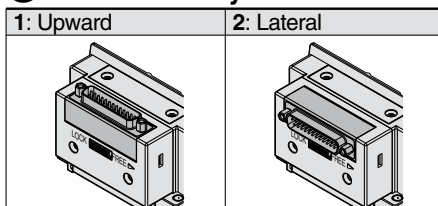
10	Side ported
11	Bottom ported

#### 3 Connector type

F: D-sub connector (25 pins)



#### 4 Connector entry direction



#### 5 Valve stations

F: D-sub connector (25 pins)

Symbol	Stations	Note
02	2 stations	Double wiring <i>Note 1)</i>
⋮	⋮	
12	12 stations	Specified layout <i>Note 2)</i> (Available up to 24 solenoids)
02	2 stations	
⋮	⋮	
24	24 stations	

*Note 1)* Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control

signal. If this is not desired, order with a specified layout.

*Note 2)* Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

*Note 3)* This also includes the number of blanking plate assembly.

#### 6 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

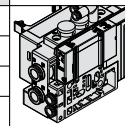
#### 7 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

#### 8 A, B port size (Metric)

Symbol	A, B port	Type 10/ Side ported	Type 11/ Bottom ported
		SY5000	SY5000
C4 C6 C8 CM*	Straight ø4 One-touch fitting ø6 One-touch fitting ø8 One-touch fitting Straight port, mixed sizes	●	●
		●	●
		●	●
		●	●
P, E port size (One-touch fittings)		ø10	ø10



\* Indicate the sizes on the manifold specification sheet in the case of "CM".  
\* The direction of P, E port fittings is the same as for A, B port.

#### 9 Mounting

Symbol	Mounting
Nil	Direct mounting
D□	DIN rail mounting

#### DIN rail option

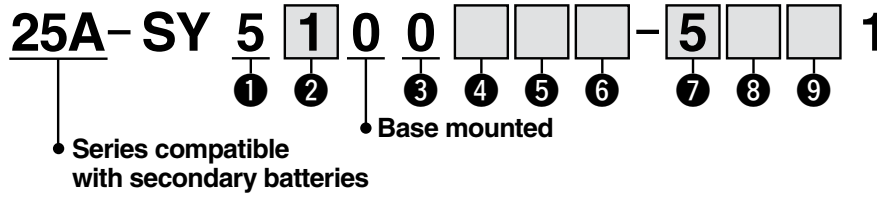
Nil	Standard length	
0	With DIN bracket (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the total length of specified stations.
⋮	⋮	
24	For 24 stations	

*Note 1)* Enter the number of stations inside □. (Refer to "DIN Rail Option" above.)

*Note 2)* Only direct mounting is available for Type 11 (Bottom ported).

\* Specifications and dimensions for the 25A-series are the same as standard products.

How to Order Valves (With two mounting screws)



1 Series

5	SY5000
---	--------

2 Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

3 Seal type

0	Rubber seal
---	-------------

4 Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

5 Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

6 Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

7 Rated voltage

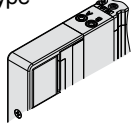
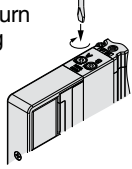
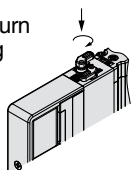
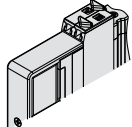
5	24 VDC
6	12 VDC

8 Light/surge voltage suppressor and common specification

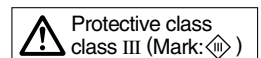
Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

9 Manual override

<p>Nil: Non-locking push type</p> 	<p>D: Push-turn locking slotted type</p> 
<p>E: Push-turn locking lever type</p> 	<p>F: Slide locking type</p> 

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Plug-in Connector Connecting Base

D-sub Connector

Type 12  
Top Ported

## Series 25A-SY5000



### How to Order Manifold

25A-SS5Y 5-12 F 1-05 U - -

1 2 3 4 5 6 7

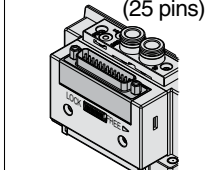
• Series compatible with secondary batteries

#### 1 Series

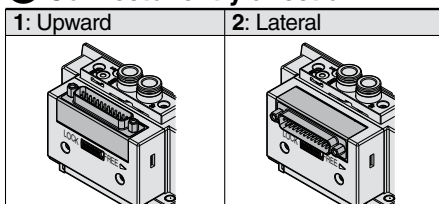
5	SY5000
---	--------

#### 2 Connector type

F: D-sub connector (25 pins)



#### 3 Connector entry direction



#### 4 Valve stations

F: D-sub connector (25 pins)

Symbol	Stations	Note
02	2 stations	Double wiring Note 1)
:	:	
12	12 stations	Specified layout Note 2) (Available up to 24 solenoids)
02	2 stations	
:	:	
24	24 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 5 P, E port entry

U Note)	U side (2 to 10 stations)
D Note)	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

Note) 6 For type "S", supply/exhaust block assembly with built-in silencer, choose "U" or "D" for P port entry.

#### 6 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged. The silencer exhaust port is located on the opposite side of P, E port entry. (Example: When the P, E port entry is D side, the silencer exhaust port is U side.)

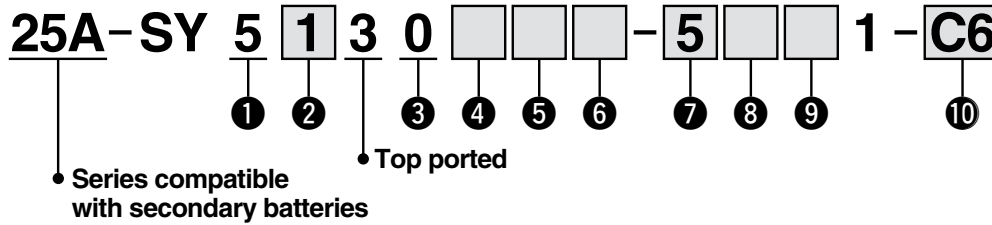
#### 7 Mounting

Nil	Direct mounting	
D	DIN rail mounting (With DIN rail)	
D0	DIN rail mounting (Without DIN rail)	
D3	For 3 stations	Specify a longer rail than the standard length.
:	:	
D24	For 24 stations	

\* Specifications and dimensions for the 25A-series are the same as standard products.



How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

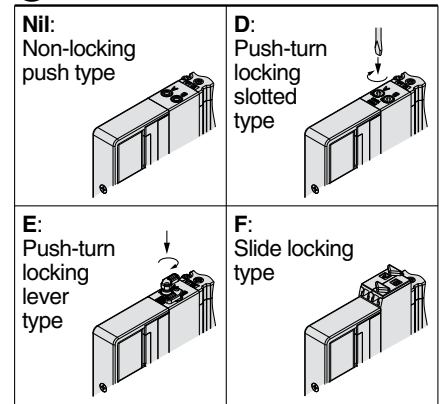
5	24 VDC
6	12 VDC

⑧ Light/surge voltage suppressor and common specification

Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

⑨ Manual override

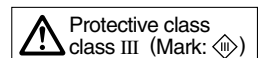


⑩ A, B port size

One-touch fitting (Metric)

Symbol	A, B port	SY5000
C4	ø4 One-touch fitting	●
C6	ø6 One-touch fitting	●
C8	ø8 One-touch fitting	●

\* Specifications and dimensions for the 25A-series are the same as standard products.



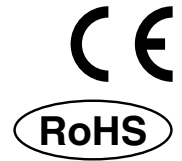
Type 10  
Side Ported

Type 11  
Bottom Ported

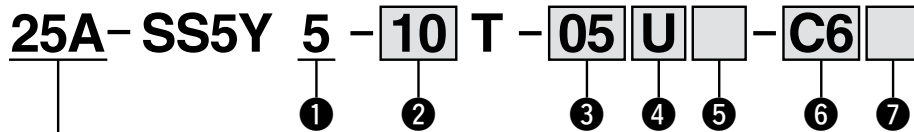
# Plug-in Connector Connecting Base

Terminal Block Box

## Series 25A-SY5000



### How to Order Manifold



• Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 2 Type

10	Side ported
11	Bottom ported

#### 3 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
10	10 stations	
02	2 stations	Specified layout <sup>Note 2)</sup> (Available up to 20 solenoids)
⋮	⋮	
20	20 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications with the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 4 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 20 stations)

#### 5 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### 7 Mounting

Symbol	Mounting
Nil	Direct mounting
D□	DIN rail mounting

Note 1) Enter the number of stations inside □. (Refer to "DIN Rail Option" below.)

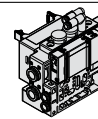
Note 2) Only direct mounting is available for Type 11 (Bottom ported).

#### DIN rail option

Nil	Standard length	
0	With DIN bracket (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the total length of specified stations.
⋮	⋮	
24	For 24 stations	

#### 6 A, B port size (Metric)

Symbol	A, B port		Type 10/ Side ported	Type 11/ Bottom ported
			SY5000	SY5000
C4	Straight	ø4 One-touch fitting	●	●
C6		ø6 One-touch fitting	●	●
C8		ø8 One-touch fitting	●	●
CM*		Straight port, mixed sizes	●	●
P, E port size (One-touch fittings)			ø10	ø10

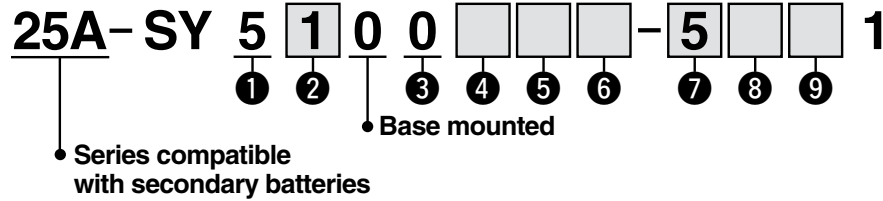


\* Indicate the sizes on the manifold specification sheet in the case of "CM".

\* The direction of P, E port fittings is the same as for A, B port.

\* Specifications and dimensions for the 25A-series are the same as standard products.

How to Order Valves (With two mounting screws)



1 Series

5	SY5000
---	--------

2 Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

3 Seal type

0	Rubber seal
---	-------------

4 Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

5 Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

6 Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

7 Rated voltage

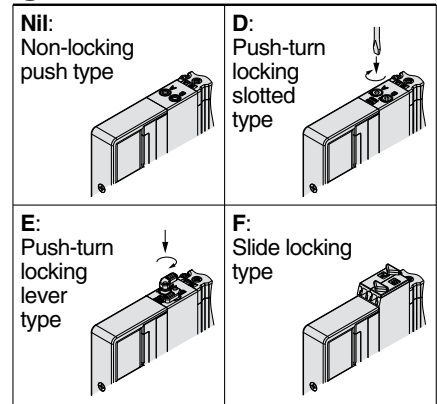
5	24 VDC
6	12 VDC

8 Light/surge voltage suppressor and common specification

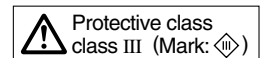
Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

9 Manual override



\* Specifications and dimensions for the 25A-series are the same as standard products.



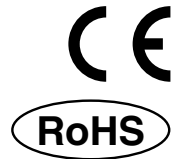
Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Plug-in Connector Connecting Base

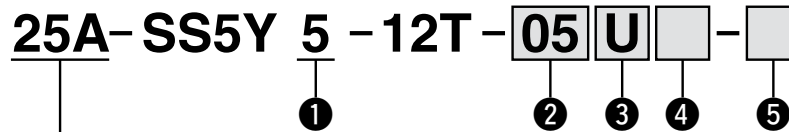
Terminal Block Box

Type 12  
Top Ported

## Series 25A-SY5000



### How to Order Manifold



• Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 3 P, E port entry

U Note)	U side (2 to 10 stations)
D Note)	D side (2 to 10 stations)
B	Both sides (2 to 20 stations)

Note) 4 For type "S", supply/exhaust block assembly with built-in silencer, choose "U" or "D" for P port entry.

#### 2 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring Note 1)
:	:	
10	10 stations	
02	2 stations	Specified layout Note 2) (Available up to 20 solenoids)
:	:	
20	20 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 4 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged. The silencer exhaust port is located on the opposite side of P, E port entry.  
(Example: When the P, E port entry is D side, the silencer exhaust port is U side.)

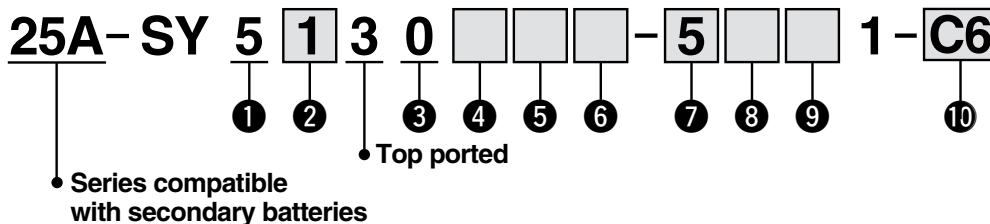
\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### 5 Mounting

Nil	Direct mounting	
D	DIN rail mounting (With DIN rail)	
D0	DIN rail mounting (Without DIN rail)	
D3	For 3 stations	Specify a longer rail than the standard length.
:	:	
D20	For 20 stations	

\* Specifications and dimensions for the 25A-series are the same as standard products.

How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

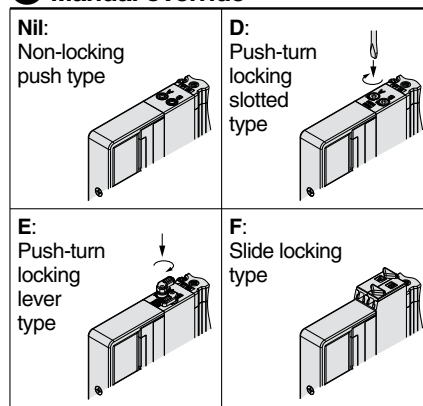
5	24 VDC
6	12 VDC

⑧ Light/surge voltage suppressor and common specification

Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

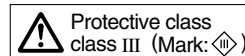
⑨ Manual override



⑩ A, B port size One-touch fitting (Metric)

Symbol	A, B port	SY5000
C4	ø4 One-touch fitting	●
C6	ø6 One-touch fitting	●
C8	ø8 One-touch fitting	●

\* Specifications and dimensions for the 25A-series are the same as standard products.





Type 10  
Side Ported

Type 11  
Bottom Ported

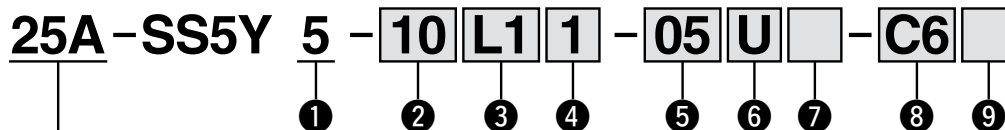
# Plug-in Connector Connecting Base

Lead Wire

## Series 25A-SY5000



### How to Order Manifold



• Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 3 Number of cores (Lead wire)

L1	34 cores
L2	17 cores
L3	9 cores

#### 6 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

#### 2 Type

10	Side ported
11	Bottom ported

#### 4 Lead wire length

1	0.6 m
2	1.5 m
3	3 m

#### 7 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.  
\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### 5 Valve stations

##### (L1□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
16	16 stations	Specified layout <sup>Note 2)</sup> (Available up to 32 solenoids)
02	2 stations	
⋮	⋮	
24	24 stations	

##### (L3□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
04	4 stations	Specified layout <sup>Note 2)</sup> (Available up to 8 solenoids)
02	2 stations	
⋮	⋮	
08	8 stations	

##### (L2□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
08	8 stations	Specified layout <sup>Note 2)</sup> (Available up to 16 solenoids)
02	2 stations	
⋮	⋮	
16	16 stations	

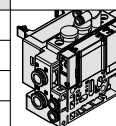
Note 1) Double wiring: 2-position single, double, 3-position and 4-position manifolds can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 8 A, B port size (Metric)

Symbol	A, B port	Type 10/ Side ported	Type 11/ Bottom ported
		SY5000	SY5000
C4	Straight ø4 One-touch fitting	●	●
C6		●	●
C8		●	●
CM*		●	●
P, E port size (One-touch fittings)		ø10	ø10



\* Indicate the sizes on the manifold specification sheet in the case of "CM".

\* The direction of P, E port fittings is the same as for A, B port.

#### 9 Mounting

Symbol	Mounting
Nil	Direct mounting
D□	DIN rail mounting

Note 1) Enter the number of stations inside □. (Refer to "DIN Rail Option" below.)

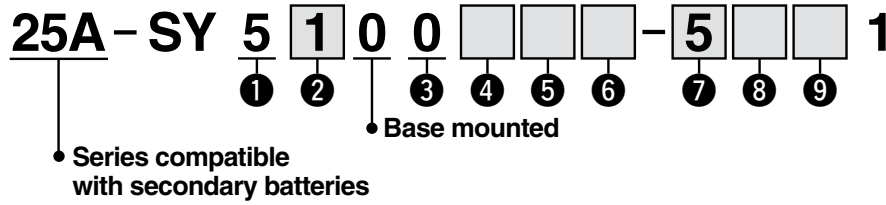
Note 2) Only direct mounting is available for Type 11 (Bottom ported).

##### DIN rail option

Symbol	Mounting	
Nil	Standard length	
0	With DIN bracket (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the total length of specified stations.
⋮	⋮	
24	For 24 stations	

\* Specifications and dimensions for the 25A-series are the same as standard products.

How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

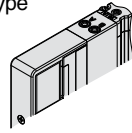
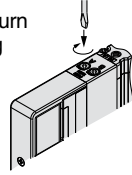
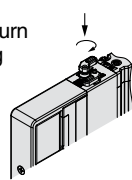
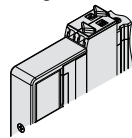
5	24 VDC
6	12 VDC

⑧ Light/surge voltage suppressor and common specification

Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

⑨ Manual override

<p><b>Nil:</b> Non-locking push type</p> 	<p><b>D:</b> Push-turn locking slotted type</p> 
<p><b>E:</b> Push-turn locking lever type</p> 	<p><b>F:</b> Slide locking type</p> 

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug-in Connector Connecting Base

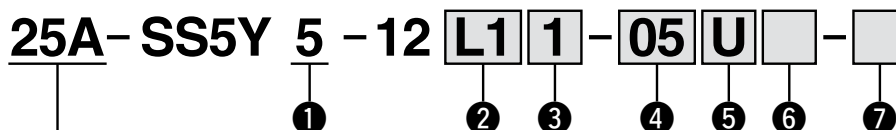
Lead Wire

Type 12  
Top Ported

## Series 25A-SY5000



### How to Order Manifold



• Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 2 Number of cores (Lead wire)

L1	34 cores
L2	17 cores
L3	9 cores

#### 3 Lead wire length

1	0.6 m
2	1.5 m
3	3 m

#### 4 Valve stations

##### (L1□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
∴	∴	
16	16 stations	Specified layout <sup>Note 2)</sup> (Available up to 32 solenoids)
02	2 stations	
∴	∴	
24	24 stations	

##### (L3□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
∴	∴	
04	4 stations	Specified layout <sup>Note 2)</sup> (Available up to 8 solenoids)
02	2 stations	
∴	∴	
08	8 stations	

##### (L2□)

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
∴	∴	
08	8 stations	Specified layout <sup>Note 2)</sup> (Available up to 16 solenoids)
02	2 stations	
∴	∴	
16	16 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations. Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 5 P, E port entry

U <sup>Note)</sup>	U side (2 to 10 stations)
D <sup>Note)</sup>	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

Note) 6 For type "S", supply/exhaust block assembly with built-in silencer, choose "U" or "D" for P port entry.

#### 6 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged. The silencer exhaust port is located on the opposite side of P, E port entry. (Example: When the P, E port entry is D side, the silencer exhaust port is U side.)

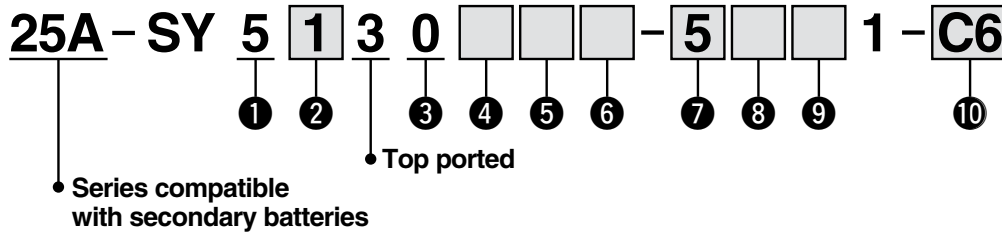
\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### 7 Mounting

Nil	Direct mounting	
D	DIN rail mounting (With DIN rail)	
D0	DIN rail mounting (Without DIN rail)	
D3	For 3 stations	Specify a longer rail than the standard length.
∴	∴	
D24	For 24 stations	

\* Specifications and dimensions for the 25A-series are the same as standard products.

How to Order Valves (With two mounting screws)



**1 Series**

5	SY5000
---	--------

**2 Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

**3 Seal type**

0	Rubber seal
---	-------------

**4 Back pressure check valve (Built-in valve type)**

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

**5 Pilot valve option**

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

**6 Coil type**

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

**7 Rated voltage**

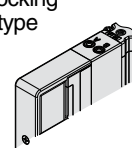
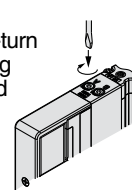
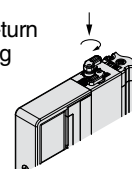
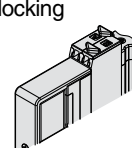
5	24 VDC
6	12 VDC

**8 Light/surge voltage suppressor and common specification**

Nil	Without light/surge voltage suppressor (Non-polar)
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

**9 Manual override**

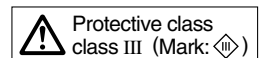
<p><b>Nil:</b> Non-locking push type</p> 	<p><b>D:</b> Push-turn locking slotted type</p> 
<p><b>E:</b> Push-turn locking lever type</p> 	<p><b>F:</b> Slide locking type</p> 

**10 A, B port size**

One-touch fitting (Metric)

Symbol	A, B port	SY5000
C4	ø4 One-touch fitting	●
C6	ø6 One-touch fitting	●
C8	ø8 One-touch fitting	●

\* Specifications and dimensions for the 25A-series are the same as standard products.



Type 10  
Side Ported

Type 11  
Bottom Ported

# Plug-in Connector Connecting Base

EX260



RoHS

# Series 25A-SY5000

## How to Order Manifold

25A-SS5Y 5 - 10 S NA N - 05 U - C6

1 2 3 4 5 6 7 8 9

Series compatible with secondary batteries

### 1 Series

5	SY5000
---	--------

### 2 Type

10	Side ported
11	Bottom ported

### 3 SI unit specifications

Symbol	Protocol	Number of outputs	Communication connector
0	Without SI unit		
QA	DeviceNet™	32	M12
QB		16	
NA	PROFIBUS DP	32	
NB		16	
VA	CC-Link	32	
VB		16	
DA	EtherCAT	32	
DB		16	
FA	PROFINET	32	
FB		16	
EA	EtherNet/IP™	32	
EB		16	

For SI unit part number, refer to page 33.  
DIN rail cannot be mounted without SI unit.

### 4 SI unit output polarity

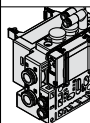
Nil	Positive common
N	Negative common

Note 1) Ensure a match with the common specifications of the value to be used.

Note 2) Without SI unit, the symbol is nil.

### 8 A, B port size (Metric)

Symbol	A, B port	Type 10/ Side ported	Type 11/ Bottom ported
		SY5000	SY5000
C4 C6 C8 CM*	Straight	ø4 One-touch fitting	●
		ø6 One-touch fitting	●
		ø8 One-touch fitting	●
		Straight port, mixed sizes	●
P, E port size (One-touch fittings)		ø10	ø10



\* Indicate the sizes on the manifold specification sheet in the case of "CM".

### 5 Valve stations

In the case of the 32-output SI unit

Symbol	Stations	Note
02	2 stations	Double wiring Note 1)
⋮	⋮	
16	16 stations	Specified layout Note 2) (Available up to 32 solenoids)
02	2 stations	
⋮	⋮	
24	24 stations	

In the case of the 16-output SI unit

Symbol	Stations	Note
02	2 stations	Double wiring Note 1)
⋮	⋮	
08	8 stations	Specified layout Note 2) (Available up to 16 solenoids)
02	2 stations	
⋮	⋮	
16	16 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet.

(Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

Note 4) For the model without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

### 6 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

### 7 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

### 9 Mounting

Symbol	Mounting
Nil	Direct mounting
D□	DIN rail mounting

Note 1) Enter the number of stations inside □. (Refer to "DIN Rail Option" below.)

Note 2) Only direct mounting is available for Type "11" (Bottom ported).

### DIN rail option

Nil	Direct mounting	
0	With DIN bracket (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the total length of specified stations.
⋮	⋮	
24	For 24 stations	

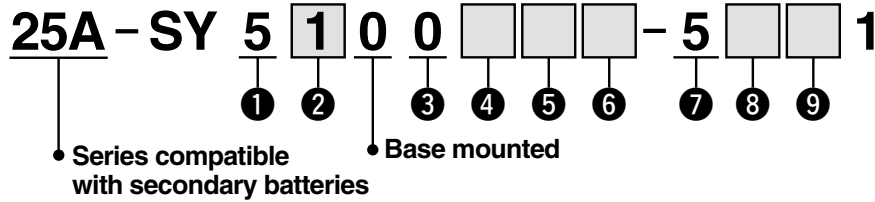
\* When it is necessary to mount a DIN rail without an SI unit, select "D0" and order DIN rail length separately, referring to L3 in the dimensions.

\* Specifications and dimensions for the 25A-series are the same as standard products.

For details about the EX260 Integrated-type (For Output) Serial Transmission System, refer to the **WEB catalog** or the **Best Pneumatics No. 1**, and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 33 in this catalog. Please download the Operation Manual via our website, <http://www.smcworld.com>



How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when a valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

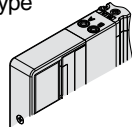
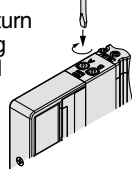
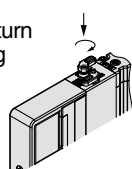
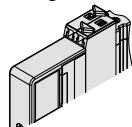
5	24 VDC
---	--------

⑧ Light/surge voltage suppressor and common specification

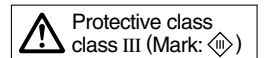
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Select a valve from "R", "U", "S" or "Z" when the SI unit output polarity is Nil (Positive common). Select a valve from "R", "U", "NS" or "NZ" when the SI unit output polarity is "N" (Negative common).  
\* Only "Z" and "NZ" types are available for the product with power saving circuit.

⑨ Manual override

<p>Nil: Non-locking push type</p> 	<p>D: Push-turn locking slotted type</p> 
<p>E: Push-turn locking lever type</p> 	<p>F: Slide locking type</p> 

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Plug-in Connector Connecting Base

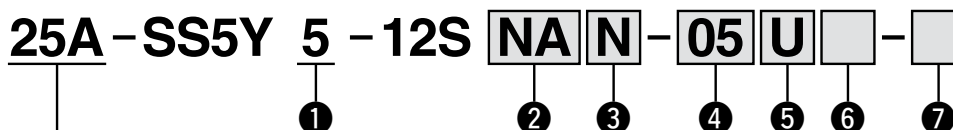
EX260

Type 12  
Top Ported

## Series 25A-SY5000



### How to Order Manifold



• Series compatible with secondary batteries

#### ① Series

5	SY5000
---	--------

#### ② SI unit specifications

Symbol	Protocol	Number of outputs	Communication connector
0	Without SI unit		
QA	DeviceNet™	32	M12
QB		16	
NA	PROFIBUS	32	
NB		16	
VA	CC-Link	32	
VB		16	
DA	EtherCAT	32	
DB		16	
FA	PROFINET	32	
FB		16	
EA	EtherNet/IP™	32	
EB		16	

For SI unit part number, refer to page 33.  
DIN rail cannot be mounted without SI unit.

#### ③ SI unit output polarity

Nil	Positive common (NPN)
N	Negative common (PNP)

Note 1) Ensure a match with the common specifications of the value to be used.

Note 2) Without SI unit, the symbol is nil.

#### ④ Valve stations

In the case of the 32-output SI unit

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
16	16 stations	Specified layout <sup>Note 2)</sup> (Available up to 32 solenoids)
02	2 stations	
⋮	⋮	
24	24 stations	

In the case of the 16-output SI unit

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
08	8 stations	Specified layout <sup>Note 2)</sup> (Available up to 16 solenoids)
02	2 stations	
⋮	⋮	
16	16 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet.  
(Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

Note 4) For the model without the SI unit (S0), note the maximum number of solenoids of the SI unit that will be mounted. If the layout is specified, indicate it on the manifold specification sheet.

#### ⑤ P, E port entry

U <sup>Note)</sup>	U side (2 to 10 stations)
D <sup>Note)</sup>	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

Note) ⑥ For type "S", supply/exhaust block assembly with built-in silencer, choose "U" or "D" for P port entry.

#### ⑥ SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged. The silencer exhaust port is located on the opposite side of P, E port entry. (Example: When the P, E port entry is D side, the silencer exhaust port is U side.)

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### ⑦ Mounting

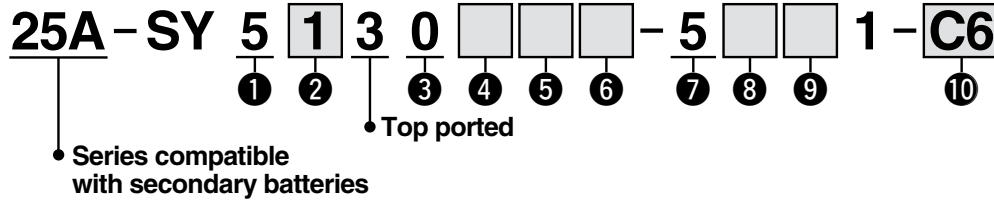
Symbol	Mounting
Nil	Direct mounting
D	DIN rail mounting (With DIN rail)
D0	DIN rail mounting (Without DIN rail)
D3	For 3 stations
⋮	⋮
D24	For 24 stations

\* When it is necessary to mount a DIN rail without an SI unit, select "D0" and order DIN rail length separately, referring to L3 in the dimensions.

\* Specifications and dimensions for the 25A-series are the same as standard products.

For details about the EX260 Integrated-type (For Output) Serial Transmission System, refer to the **WEB catalog** or the **Best Pneumatics No. 1**, and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 33 in this catalog. Please download the **Operation Manual** via our website, <http://www.smcworld.com>

How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 PSI [0.7 MPa])
B	Quick response type (102 PSI [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when a valve is continuously energized for long periods of time.

\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

5	24 VDC
---	--------

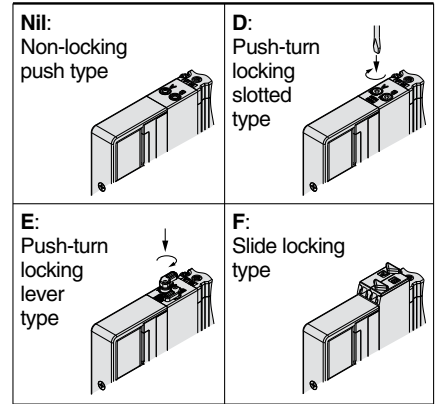
⑧ Light/surge voltage suppressor and common specification

R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)
NS	With surge voltage suppressor (Negative common)
NZ	With light/surge voltage suppressor (Negative common)

\* Select a valve from "R", "U", "S" or "Z" when the SI unit output polarity is Nil (Positive common). Select a valve from "R", "U", "NS" or "NZ" when the SI unit output polarity is "N" (Negative common).

\* Only "Z" and "NZ" types are available for the product with power saving circuit.

⑨ Manual override

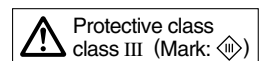


⑩ A, B port size

One-touch fitting (Metric)

Symbol	A, B port	SY5000
C4	ø4 One-touch fitting	●
C6	ø6 One-touch fitting	●
C8	ø8 One-touch fitting	●

\* Specifications and dimensions for the 25A-series are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

Type 10  
Side Ported

Type 11  
Bottom Ported

# Plug-in Connector Connecting Base

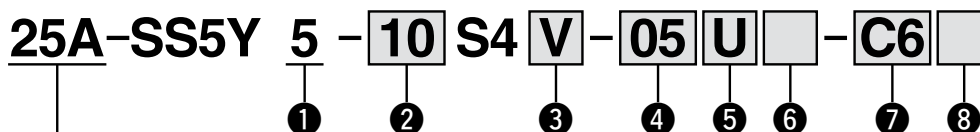
EX126



RoHS

## Series 25A-SY5000

### How to Order Manifold



• Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 2 Type

10	Side ported
11	Bottom ported

#### 3 SI unit

0	Without SI unit
V	CC-Link (Positive common NPN)

\* Only a terminal block plate is mounted for the valve without SI unit.  
For SI unit part number, refer to page 33.

#### 4 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
⋮	⋮	
08	8 stations	
02	2 stations	Specified layout <sup>Note 2)</sup> (Available up to 16 solenoids)
⋮	⋮	
16	16 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations.  
Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications with the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 5 P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 16 stations)

#### 6 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* 3/5(E) port is plugged for the built-in silencer type.

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

#### 8 Mounting

Symbol	Mounting
Nil	Direct mounting
D□	DIN rail mounting

Note 1) Enter the number of stations inside □. (Refer to "DIN Rail Option" below.)

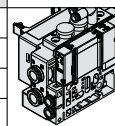
Note 2) Only direct mounting is available for Type 11 (Bottom ported).

#### DIN rail option

Nil	Standard length	
0	With DIN bracket (Without DIN rail)	
3	For 3 stations	Specify a longer rail than the total length of specified stations.
⋮	⋮	
16	For 16 stations	

#### 7 A, B port (Metric)

Symbol	A, B port	Type 10/ Side ported	Type 11/ Bottom ported
		SY5000	SY5000
C4 C6 C8	Straight	•	•
		•	•
		•	•
CM*	Straight port, mixed sizes	•	•
P, E port size (One-touch fittings)		ø10	ø10



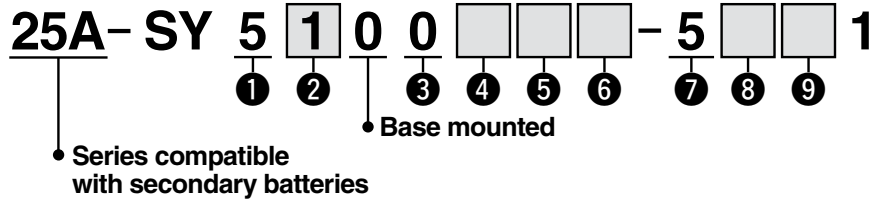
\* Indicate the size on the manifold specification sheet in the case of "CM".

\* The direction of P, E port fittings is the same as for A, B port.

\* Specifications and dimensions for the 25A-series are the same as standard products.

For details about the EX126 Integrated-type (For Output) Serial Transmission System, refer to the **WEB catalog** or the **Best Pneumatics No. 1**, and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 33 in this catalog. Please download the **Operation Manual** via our website, <http://www.smcworld.com>

How to Order Valves (With two mounting screws)



① Series

5	SY5000
---	--------

② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

③ Seal type

0	Rubber seal
---	-------------

④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

⑦ Rated voltage

5	24 VDC
---	--------

⑧ Light/surge voltage suppressor and common specification

R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)

\* Only "Z" type is available for the product with power saving circuit.

⑨ Manual override

<p>Nil: Non-locking push type</p>	<p>D: Push-turn locking slotted type</p>
<p>E: Push-turn locking lever type</p>	<p>F: Slide locking type</p>

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

Electric Actuators

Auto Switches



# Plug-in Connector Connecting Base

EX126



Type 12  
Top Ported

## Series 25A-SY5000

### How to Order Manifold



Series compatible with secondary batteries

#### 1 Series

5	SY5000
---	--------

#### 2 SI unit

0	Without SI unit
V	CC-Link (Positive common NPN)

\* Only a terminal block plate is mounted for the valve without SI unit.  
For SI unit part number, refer to page 33.

#### 3 Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring <sup>Note 1)</sup>
:	:	
08	8 stations	
02	2 stations	Specified layout <sup>Note 2)</sup> (Available up to 16 solenoids)
:	:	
16	16 stations	

Note 1) Double wiring: 2-position single, double, 3-position and 4-position valves can be used on all manifold stations.  
Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.

Note 2) Specified layout: Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, 3-position and 4-position valves cannot be used where single wiring has been specified.)

Note 3) This also includes the number of blanking plate assembly.

#### 4 P, E port entry

U <sup>Note)</sup>	U side (2 to 10 stations)
D <sup>Note)</sup>	D side (2 to 10 stations)
B	Both sides (2 to 16 stations)

Note) For type "S", supply/exhaust block assembly with built-in silencer, choose "U" or "D" for P port entry.

#### 5 SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer

\* For built-in silencer type, P and E ports are available on U and D sides. 3/5(E) port is plugged. The silencer exhaust port is located on the opposite side of P, E port entry. (Example: When the P, E port entry is D side, the silencer exhaust port is U side.)

\* When the built-in silencer type is used, keep the exhaust port from coming in direct contact with water or other liquids.

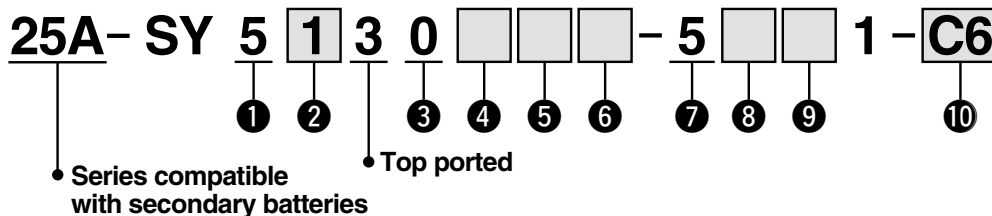
#### 6 Mounting

Nil	Direct mounting	
D	DIN rail mounting (With DIN rail)	
D0	DIN rail mounting (Without DIN rail)	
D3	For 3 stations	Specify a longer rail than the standard length.
:	:	
D16	For 16 stations	

\* Specifications and dimensions for the 25A-series are the same as standard products.

For details about the EX126 Integrated-type (For Output) Serial Transmission System, refer to the **WEB catalog** or the **Best Pneumatics No. 1**, and the **Operation Manual**. For details about part numbers of SI units to be mounted, refer to page 33 in this catalog. Please download the **Operation Manual** via our website, <http://www.smcworld.com>

### How to Order Valves (With two mounting screws)



#### ① Series

5	SY5000
---	--------

#### ② Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual 3-port valve (N.C./N.C.)
B	4-position dual 3-port valve (N.O./N.O.)
C	4-position dual 3-port valve (N.C./N.O.)

#### ③ Seal type

0	Rubber seal
---	-------------

#### ④ Back pressure check valve (Built-in valve type)

Nil	None
H	Built-in

\* The built-in valve type back pressure check valve is not available for the 3-position type.

#### ⑤ Pilot valve option

Nil	Standard (102 psi [0.7 MPa])
B	Quick response type (102 psi [0.7 MPa])

#### ⑥ Coil type

Nil	Standard
T	With power saving circuit (Continuous duty type)

\* Be sure to select the power saving circuit type when the valve is continuously energized for long periods of time.  
\* Note the specified energizing time when power saving circuit is selected. For details, refer to the standard product catalog.

#### ⑦ Rated voltage

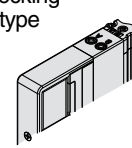
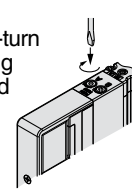
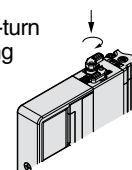
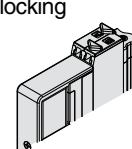
5	24 VDC
---	--------

#### ⑧ Light/surge voltage suppressor and common specification

R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)
S	With surge voltage suppressor (Positive common)
Z	With light/surge voltage suppressor (Positive common)

\* Only "Z" type is available for models with a power saving circuit.

#### ⑨ Manual override

<b>Nil:</b> Non-locking push type 	<b>D:</b> Push-turn locking slotted type 
<b>E:</b> Push-turn locking lever type 	<b>F:</b> Slide locking type 

#### ⑩ A, B port size One-touch fitting (Metric)

Symbol	A, B port	SY5000
C4	ø4 One-touch fitting	●
C6	ø6 One-touch fitting	●
C8	ø8 One-touch fitting	●

\* Specifications and dimensions for the 25A-series are the same as standard products.

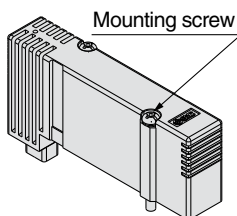
#### ⚠ Caution

Tightening torque for mounting screw M3: 0.59 lbf-ft [0.8 N·m]
---

### Manifold Options

#### ■ Blanking plate assembly

(With two mounting screws)  
Used when valve additions are expected or for maintenance. A structure is in place on the blanking plate to prevent the mounting screws from sliding.



25A-SY50M-26-1A

#### How to Order Blanking Plate Assembly

**25A-SY 5 0M-26- 1 A**

Series	5 SY5000
--------	----------

#### • Base type

1	For plug-in connector connecting base
---	---------------------------------------

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Series 25A-SY5000

## SI Unit Part No.

Description	SI unit part no.	Note
EX260 SI unit	<b>EX260-SPR1-X117</b>	PROFIBUS DP M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SPR2-X117</b>	PROFIBUS DP M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SPR3-X117</b>	PROFIBUS DP M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SPR4-X117</b>	PROFIBUS DP M12 connector, 16 outputs, Positive common (NPN)
	<b>EX260-SDN1-X117</b>	DeviceNet™ M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SDN2-X117</b>	DeviceNet™ M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SDN3-X117</b>	DeviceNet™ M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SDN4-X117</b>	DeviceNet™ M12 connector, 16 outputs, Positive common (NPN)
	<b>EX260-SEC1-X117</b>	EtherCAT M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SEC2-X117</b>	EtherCAT M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SEC3-X117</b>	EtherCAT M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SEC4-X117</b>	EtherCAT M12 connector, 16 outputs, Positive common (NPN)
	<b>EX260-SMJ1-X117</b>	CC-Link M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SMJ2-X117</b>	CC-Link M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SMJ3-X117</b>	CC-Link M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SMJ4-X117</b>	CC-Link M12 connector, 16 outputs, Positive common (NPN)
	<b>EX260-SPN1-X117</b>	PROFINET M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SPN2-X117</b>	PROFINET M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SPN3-X117</b>	PROFINET M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SPN4-X117</b>	PROFINET M12 connector, 16 outputs, Positive common (NPN)
EX126 SI unit	<b>EX260-SEN1-X117</b>	EtherNet/IP™ M12 connector, 32 outputs, Negative common (PNP)
	<b>EX260-SEN2-X117</b>	EtherNet/IP™ M12 connector, 32 outputs, Positive common (NPN)
	<b>EX260-SEN3-X117</b>	EtherNet/IP™ M12 connector, 16 outputs, Negative common (PNP)
	<b>EX260-SEN4-X117</b>	EtherNet/IP™ M12 connector, 16 outputs, Positive common (NPN)
	<b>EX126D-SMJ1-X220</b>	CC-Link (Terminal block, 16 outputs, Positive common (NPN))

## Valve Mounting Screw Part No.

Description	Part no.	Note
Round head combination screw	<b>25A-SS5Y5</b>	Part numbers shown on the left are for 10 valves. (20 pcs.)
	<b>SY5000-223-1A</b>	

## One-touch Fittings Part No.

Port size			25A-SY5000
A, B port	Metric size	ø4 One-touch fitting (Straight type)	<b>90-VVQ1000-51A-C4</b>
		ø6 One-touch fitting (Straight type)	<b>90-VVQ1000-51A-C6</b>
		ø8 One-touch fitting (Straight type)	<b>90-VVQ1000-51A-C8</b>
P, E port	Metric size	ø10 One-touch fitting (Straight type)	<b>90-VVQ2000-51A-C10</b>

## Manifold Options

### How to Order Individual SUP/EXH Spacer Assembly

One-touch fitting  
Straight type

**25A-SY 5 0M-38-1 A-C6**

Series	
5	SY5000
Spacer type	
38	Individual SUP spacer
39	Individual EXH spacer

#### Port size (Metric)

Symbol	P, E port
<b>C4</b>	ø4 One-touch fitting
<b>C6</b>	ø6 One-touch fitting
<b>C8</b>	ø8 One-touch fitting

Part numbers of mounting screw (2 pcs. of each)  
SY5000: **SY5000-223-2A**

### How to Order Individual SUP/EXH Block Assembly

One-touch fitting  
Straight type

**25A-SY 5 0M-78-1 A-C6**

Series	
5	SY5000
Block type	
78	Individual SUP block
79	Individual EXH block

#### Port size (Metric)

Symbol	P, E port
<b>C4</b>	ø4 One-touch fitting
<b>C6</b>	ø6 One-touch fitting
<b>C8</b>	ø8 One-touch fitting

# 5 Port Solenoid Valve Body Ported/Single Unit

## Series 25A-SY5000/7000

### How to Order

25A - SY 5 1 20 [ ] - 5 L [ ] [ ] - 01

Series compatible with secondary batteries

#### Series

5	SY5000
7	SY7000

#### Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

#### Coil specifications

Nil	Standard
T	With power saving circuit (24, 12 VDC only)

\* Power saving circuit is not available in the case of "D" or "Y" type.

#### For DC

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

#### Rated voltage

#### For AC (50/60 Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

\* DC specifications of type "D" and "Y" are only available with 12 and 24 VDC.

#### Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC				24, 12 VDC/100, 110, 200, 220 VAC
Grommet	L plug connector	M plug connector		DIN terminal
G: With lead wire (Length 300 mm)	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	MN: Without lead wire	D,Y: With connector
H: With lead wire (Length 600 mm)	LN: Without lead wire	LO: Without connector	MO: Without connector	

\* "LN", "MN" type: with 2 sockets.

\* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).

\* Refer to the standard products for the lead wire length of L and M plug connectors and the connector assembly with cover for L and M plug connector.

#### A, B port size Thread piping

Symbol	Port size	Applicable series
01	Rc 1/8	SY5000
02	Rc 1/4	SY7000

#### One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	

#### Manual override

<b>Nil:</b> Non-locking push type 	<b>D:</b> Push-turn locking slotted type 	<b>E:</b> Push-turn locking lever type 
---------------------------------------	--	--

#### Light/surge voltage suppressor

##### Electrical entry for G, H, L, M

Symbol	Suppressor type
Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

##### Electrical entry for D, Y

Symbol	Suppressor type
Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

\* For "R" and "U", DC voltage is only available.

\* Power saving circuit is only available in the "Z" type.

Note) When placing an order for body ported solenoid valve as a single unit, mounting screw for manifold and gasket are not attached. Order them separately, if necessary.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# 5 Port Solenoid Valve Base Mounted/Single Unit

## Series 25A-SY5000/7000

### How to Order

**25A - SY 5 2 40 [ ] [ ] - 5 L [ ] [ ] - [ ]**

**Series compatible with secondary batteries**

**Series**

5	SY5000
7	SY7000

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

**Pilot type**

Nil	Internal pilot
R	External pilot

**Coil specifications**

Nil	Standard
T	With power saving circuit (24, 12 VDC only)

\* Power saving circuit is not available in the case of "D" or "Y" type.

**Rated voltage**

For DC	
5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

**For AC (50/60 Hz)**

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

\* DC specifications of type "D" and "Y" are only available with 12 and 24 VDC.

**Port size**

Symbol	Port size	Applicable series
Nil	Without sub-plate	
02	Rc 1/4 With sub-plate	SY5000 SY7000
03	Rc 3/8 With sub-plate	SY7000

**Manual override**

<b>Nil:</b> Non-locking push type 	<b>D:</b> Push-turn locking slotted type 	<b>E:</b> Push-turn locking lever type 
---------------------------------------	--	--

**Light/surge voltage suppressor**

**Electrical entry for G, H, L, M**

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.  
\* For "R" and "U", DC voltage is only available.  
\* Power saving circuit is only available in the "Z" type.

**Electrical entry for D, Y**

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

**Electrical entry**

24, 12, 6, 5, 3 VDC / 100, 110, 200, 220 VAC				24, 12 VDC / 100, 110, 200, 220 VAC
Grommet	L plug connector	M plug connector		DIN terminal
<b>G:</b> With lead wire (Length 300 mm) 	<b>L:</b> With lead wire (Length 300 mm) 	<b>M:</b> With lead wire (Length 300 mm) 	<b>MN:</b> Without lead wire 	<b>D,Y:</b> With connector 
<b>H:</b> With lead wire (Length 600 mm) 	<b>LN:</b> Without lead wire 	<b>LO:</b> Without connector 	<b>MO:</b> Without connector 	

\* "LN", "MN" type: with 2 sockets.  
\* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).  
\* Refer to the standard products for the lead wire length of L and M plug connectors and the connector assembly with cover for L and M plug connector.

\* Specifications and dimensions for the 25A-series are the same as standard products.



# 5 Port Solenoid Valve Body Ported Manifold Bar Stock Type/Individual Wiring

Type **20**

## Series **25A-SY5000/7000**

### How to Order Manifold

**25A** – **SS5Y** **5** – **20** – **05**

- Series compatible with secondary batteries

Manifold series •

5	SY5000
7	SY7000

• Stations

02	2 stations
⋮	⋮
20	20 stations

\* This also includes the number of blanking plate assemblies.

\* Specifications and dimensions for the 25A-series are the same as standard products. However, the blanking plate assembly has different dimensions. Refer to page 40.

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches

# Series 25A-SY5000/7000

## How to Order Valves

25A – SY 5 1 20 [ ] – 5 L [ ] [ ] – 01

• Series compatible with secondary batteries

Series

5	SY5000
7	SY7000

Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

Coil specifications

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

\* Power saving circuit is not available in the case of "D" or "Y" type.

Rated voltage

For DC

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

For AC (50/60 Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

\* DC specifications of type "D" and "Y" are only available with 12 and 24 VDC.

• A, B port size Thread piping

Symbol	Port size	Applicable series
01	Rc 1/8	SY5000
02	Rc 1/4	SY7000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fitting for ø4	SY5000
C6	One-touch fitting for ø6	
C8	One-touch fitting for ø8	
C8	One-touch fitting for ø8	SY7000
C10	One-touch fitting for ø10	

• Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

• Light/surge voltage suppressor

Electrical entry for G, H, L, M

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

\* For "R" and "U", DC voltage is only available.

\* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC			24, 12 VDC/ 100, 110, 200, 220 VAC
Grommet	L plug connector	M plug connector	DIN terminal
<b>G:</b> With lead wire (Length 300 mm) <b>H:</b> With lead wire (Length 600 mm)	<b>L:</b> With lead wire (Length 300 mm) <b>LN:</b> Without lead wire <b>LO:</b> Without connector	<b>M:</b> With lead wire (Length 300 mm) <b>MN:</b> Without lead wire <b>MO:</b> Without connector	<b>D:</b> With connector <b>Y:</b> With connector

\* "LN", "MN" type: with 2 sockets.

\* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).

\* Refer to the standard products for the lead wire length of L and M plug connectors and the connector assembly with cover for L and M plug connector.

\* Specifications and dimensions for the 25A-series are the same as standard products.

Type **41**

Type **42**

# 5 Port Solenoid Valve Base Mounted Manifold Bar Stock Type/Individual Wiring Series 25A-SY5000/7000

## How to Order Manifold

### Type 41/Compact style

**25A – SS5Y 5 – 41 – 05 – C8**

• Series compatible with secondary batteries

Manifold series •

5	SY5000
---	--------

Stations •

02	2 stations
⋮	⋮
20	20 stations

\* This also includes the number of blanking plate assemblies.

• A, B port size Thread piping

Symbol	Port size	Applicable series
01	Rc 1/8	SY5000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N7	One-touch fitting for ø 1/4"	SY5000
N9	One-touch fitting for ø 5/16"	SY5000

### Type 42/External pilot capable

**25A – SS5Y 5 – 42 – 05 – C8**

• Series compatible with secondary batteries

Manifold series •

5	SY5000
7	SY7000

Stations •

02	2 stations
⋮	⋮
20	20 stations

\* This also includes the number of blanking plate assemblies.

• A, B port size Thread piping

Symbol	Port size	Applicable series
02	Rc 1/4	SY5000
02	Rc 1/4	SY7000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C6	One-touch fitting for ø6	SY5000
C8	One-touch fitting for ø8	SY5000
C10	One-touch fitting for ø10	SY7000

One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N7	One-touch fitting for ø 1/4"	SY5000
N9	One-touch fitting for ø 5/16"	SY5000
N11	One-touch fitting for ø 3/8"	SY7000

\* Specifications and dimensions for the 25A-series are the same as standard products. However, the blanking plate assembly has different dimensions. Refer to page 40.

# Series 25A-SY5000/7000

## How to Order Valves

25A - SY 5 2 40 [ ] [ ] - 5 L [ ] [ ]

• Series compatible with secondary batteries

Series •

5	SY5000
7	SY7000

Type of actuation •

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

Pilot type •

Nil	Internal pilot
R	External pilot

Coil specifications •

Nil	Standard
T	With power saving circuit (24 VDC, 12 VDC only)

\* Power saving circuit is not available in the case of "D" or "Y" type.

Rated voltage •

For DC

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

For AC (50/60 Hz)

1	100 VAC
2	200 VAC
3	110 VAC [115 VAC]
4	220 VAC [230 VAC]

\* DC specifications of Type "D" and "Y" are only available with 12 and 24 VDC.

• Manual override

Nil	Non-locking push type
D	Push-turn locking slotted type
E	Push-turn locking lever type

• Light/surge voltage suppressor

Electrical entry for G, H, L, M

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.  
 \* For "R" and "U", DC voltage is only available.  
 \* Power saving circuit is only available in the "Z" type.

Electrical entry for D, Y

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor (Non-polar type)
Z	With light/surge voltage suppressor (Non-polar type)

\* There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

• Electrical entry

24, 12, 6, 5, 3 VDC/100, 110, 200, 220 VAC			24, 12 VDC/ 100, 110, 200, 220 VAC
Grommet	L plug connector	M plug connector	DIN terminal
G: With lead wire (Length 300 mm) H: With lead wire (Length 600 mm)	L: With lead wire (Length 300 mm) LN: Without lead wire LO: Without connector	M: With lead wire (Length 300 mm) MN: Without lead wire MO: Without connector	D: With connector Y: With connector

\* "LN", "MN" type: with 2 sockets.

\* "Y" type is a DIN terminal conforming to EN-175301-803C (former DIN43650C).

\* Refer to the standard products for the lead wire length of L and M plug connectors and the connector assembly with cover for L and M plug connector.

# 5 Port Solenoid Valve *Series 25A-SY5000/7000*

## One-touch Fittings Part No. for Body Ported

Port size		25A-SY5000	25A-SY7000
Cylinder port	Metric size	ø4 One-touch fitting (Straight type)	90-VVQ1000-51A-C4
		ø6 One-touch fitting (Straight type)	90-VVQ1000-51A-C6
		ø8 One-touch fitting (Straight type)	90-VVQ1000-51A-C8
		ø10 One-touch fitting (Straight type)	90-VVQ2000-51A-C8 90-VVQ2000-51A-C10

## Gasket Assembly Part No.

Valve model	Manifold type	25A-SY5000	25A-SY7000
Body ported	Type 20	SY5000-GS-3	SY7000-GS-3
Base mounted	Type 41/42	SY5000-GS-4	SY7000-GS-4

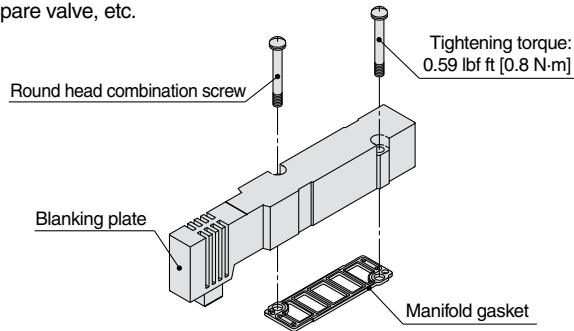
\* The gasket assembly includes 10 sets of a gasket and mounting screws.

## Manifold Options

### Blanking plate assembly

(Mounting screw: 2 pcs., with gasket)

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



### How to Order

25A - SY **5** 000 - 26 - 1A

#### Series

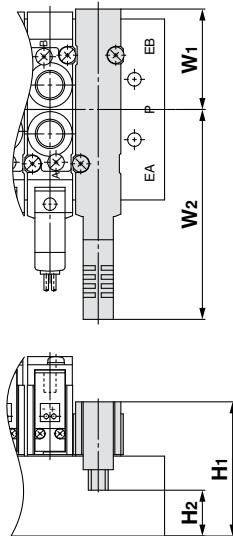
5	25A-SY5000
7	25A-SY7000

### Caution

When mounted on a type 20 manifold, only the P port is plugged.

## Dimensions

### Manifold type/For type 20

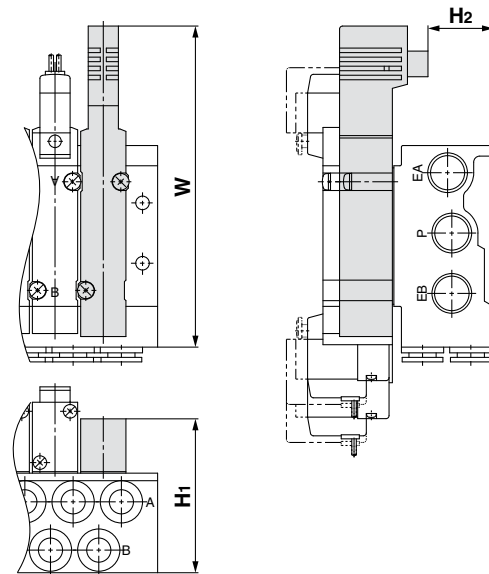


### Dimensions

(mm)

Series	Manifold type	W1	W2	H1	H2
25A-SY5000	Type 20	33.3	69.6	44.5	15.2
25A-SY7000	Type 20	39.4	76.4	41.1	18.3

### Manifold type/For type 41/42



### Dimensions

(mm)

Series	Manifold type	W	H1	H2
25A-SY5000	Type 41	106.4	51	21.7
	Type 42	107.6	56	26.7
25A-SY7000	Type 42	118.1	55.6	32.8

# Plug-in Unit/Base Mounted F Kit (D-sub connector kit)

## Series 25A-VQ2000

### How to Order Manifold

Note) For CE-compliant models, DC-type only.



**25A-VV5Q 2 1-08 C6 F U 1 - -**

- Series compatible with secondary batteries**
- Series**: 2 VQ2000
- Manifold**: 1 Plug-in unit
- Stations**: 02 2 stations, 24 24 stations
- Cylinder port**:
 

Symbol	Port size
C4	With ø4 One-touch fitting
C6	With ø6 One-touch fitting
C8	With ø8 One-touch fitting
- Connector entry direction**:
 

U	Top entry
S	Side entry
- Cable (Length)**:
 

0	Without cable
1	With cable (1.5 m)
2	With cable (3 m)
3	With cable (5 m)
- Option**:
 

Symbol	Option
Nil	None
2	200/220 VAC models
B Note 2)	With back pressure check valve
D	DIN rail mounting
D0	With DIN rail bracket (Without DIN rail)
D□ Note 3)	DIN rail length specified (□: Stations 02 to 24)
K Note 4)	Special wiring specifications (Except double wiring)
N	With name plate
R Note 5)	External pilot
S	Direct EXH outlet with built-in silencer
- CE-compliant**:
 

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.

### How to Order Valves

Note) For CE-compliant models, DC-type only.



**25A-VQ 2 1 0 1 - 5 - - 1 -**

- Series compatible with secondary batteries**
- Series**: 2 VQ2000
- Type of actuation**:
 

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual port (N.C./N.C.)
B	4-position dual port (N.O./N.O.)
C	4-position dual port (N.C./N.O.)
- Seal type**: 1 Rubber seal
- Function**:
 

Symbol	Specifications	DC	AC
Nil	Standard	(0.4 W) ○	○
B	High speed response type	(0.95 W) ○	—
N	Negative common	○	—
R	External pilot	○	○

Note) When two or more symbols are specified, indicate them alphabetically.
- CE-compliant**:
 

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.
- Manual override**:
 

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
C	Locking type (Manual)
D	Slide locking type (Manual)
- Light/surge voltage suppressor**:
 

Nil	Yes
E	None
- Coil voltage**:
 

		CE-compliant
1	100 VAC (50/60 Hz)	—
2	200 VAC (50/60 Hz)	—
3	110 VAC (50/60 Hz)	—
4	220 VAC (50/60 Hz)	—
5	24 VDC	●
6	12 VDC	●

### ⚠ Caution

Use the standard (DC) specification when continuously energizing for long periods of time.

\* Specifications and dimensions for the 25A-series are the same as standard products.





# Plug-in Unit/Base Mounted T Kit (Terminal block box kit)

## Series 25A-VQ2000

### How to Order Manifold

Note) For CE-compliant models, DC-type only.



25A – VV5Q 2 1 – 08 C6 T 0 – [ ] – [ ]

• Series compatible with secondary batteries

Series  
2 VQ2000

Manifold  
1 Plug-in unit

Stations  
02 2 stations  
: :  
20 20 stations

Cylinder port

Symbol	Port size
C4	With ø4 One-touch fitting
C6	With ø6 One-touch fitting
C8	With ø8 One-touch fitting

• CE-compliant

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.

#### Option

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve
D	DIN rail mounting
D0	With DIN rail bracket (Without DIN rail)
D□ Note 5)	DIN rail length specified (□: Stations 02 to 24)
K Note 5)	Special wiring spec. (Except double wiring)
N	With name plate
R Note 6)	External pilot
S	Direct EXH outlet with built-in silencer
W	Enclosure: Dust-tight, Water-jet-proof (IP65)

Note 1) When two or more symbols are specified, indicate them alphabetically. Example) -BRS

Note 2) Models with a suffix “-B” have check valves for prevention of back pressure at all manifold stations. When a back pressure check valve is desired, and is to be installed only in certain manifold stations, specify the mounting position by means of the manifold specification sheet.

Note 3) The number of stations that may be displayed is longer than the manifold number of stations.

Note 4) Specify the mounting position by means of the manifold specification sheet.

Note 5) Specify the wiring specifications by means of the manifold specification sheet.

Note 6) Indicate “R” for the valve with external pilot.

### How to Order Valves

Note) For CE-compliant models, DC-type only.



25A – VQ 2 1 0 1 [ ] – 5 [ ] [ ] [ ] 1 – [ ]

Series compatible with secondary batteries

Series  
2 VQ2000

Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual port (N.C./N.C.)
B	4-position dual port (N.O./N.O.)
C	4-position dual port (N.C./N.O.)

#### Seal type

1 Rubber seal

#### Function

Symbol	Specifications	DC	AC
Nil	Standard	(0.4 W) ○	○
B	High speed response type	(0.95 W) ○	—
N	Negative common	○	—
R	External pilot	○	○

Note) When two or more symbols are specified, indicate them alphabetically. Combination of “B” and “K” is not possible.

#### CE-compliant

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.

#### Enclosure

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

#### Manual override

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
C	Locking type (Manual)
D	Slide locking type (Manual)

#### Light/surge voltage suppressor

Nil	Yes
E	None

#### Coil voltage

	CE-compliant
1 100 VAC (50/60 Hz)	—
3 110 VAC (50/60 Hz)	—
5 24 VDC	●
6 12 VDC	●

### ⚠ Caution

Use the standard (DC) specification when continuously energizing for long periods of time.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug-in Unit/Base Mounted L Kit (Lead wire)

## Series 25A-VQ2000

Note) For CE-compliant models, DC-type only.



### How to Order Manifold

**25A-VV5Q 2 1 - 06 C6 L 1 - -**

• Series compatible with secondary batteries

**Series**

2	VQ2000
---	--------

**Manifold**

1	Plug-in unit
---	--------------

**Stations**

01	1 station
⋮	⋮
08	8 stations

**Cylinder port**

Symbol	Port size
C4	With ø4 One-touch fitting
C6	With ø6 One-touch fitting
C8	With ø8 One-touch fitting

**Cable (Length)**

0	Cable length 0.6 m
1	Cable length 1.5 m
2	Cable length 3 m

**CE-compliant**

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.

**Option**

Symbol	Option
Nil	None
2	200/220 VAC models
B Note 2)	With back pressure check valve
D	DIN rail mounting
D0	With DIN rail bracket (Without DIN rail)
D□ Note 3)	DIN rail length specified (□: Stations 02 to 08)
N	With name plate
R Note 4)	External pilot
S	Direct EXH outlet with built-in silencer
W	Enclosure: Dust-tight, Water-jet-proof (IP65)

Note 1) When two or more symbols are specified, indicate them alphabetically.  
Example) -BRS

Note 2) Models with a suffix "-B" have check valves for prevention of back pressure at all manifold stations. When a back pressure check valve is desired, and is to be installed only in certain manifold stations, specify the mounting position by means of the manifold specification sheet.

Note 3) The number of stations that may be displayed is longer than the manifold a number of stations.

Note 4) Indicate "R" for the valve with external pilot.

### How to Order Valves

Note) For CE-compliant models, DC-type only.



**25A-VQ 2 1 0 1 - 5 - - - 1 -**

• Series compatible with secondary batteries

**Series**

2	VQ2000
---	--------

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual port (N.C./N.C.)
B	4-position dual port (N.O./N.O.)
C	4-position dual port (N.C./N.O.)

**Seal type**

1	Rubber seal
---	-------------

**Function**

Symbol	Specifications	DC	AC
Nil	Standard	(0.4 W) ○	○
B	High speed response type	(0.95 W) ○	—
N	Negative common	○	—
R	External pilot	○	○

**CE-compliant**

Nil	—
Q	CE-compliant

Note) For CE-compliant models, DC-type only.

**Enclosure**

Nil	Dustproof
W	Dust-tight / Water-jet-proof type (IP65)

**Manual override**

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
C	Locking type (Manual)
D	Slide locking type (Manual)

**Light/surge voltage suppressor**

Nil	Yes
E	None

**Coil voltage**

		CE-compliant
1	100 VAC (50/60 Hz)	—
2	200 VAC (50/60 Hz)	—
3	110 VAC (50/60 Hz)	—
4	220 VAC (50/60 Hz)	—
5	24 VDC	●
6	12 VDC	●

Note) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug-in Unit/Base Mounted S Kit (Serial transmission)

# Series 25A-VQ2000

Note) Refer to "SI Unit Part No." when ordering the CE-compliant SI unit. **CE** [Option]

## How to Order Manifold

25A-VV5Q 2 1-08 C6 S V - -

Series compatible with secondary batteries

Series  
2 VQ2000

Manifold  
1 Plug-in unit

Stations	
02	2 stations
⋮	⋮
16 Note)	16 stations

Note) Max. 16 stations.  
(Specify a model with 9 to 16 stations by means of the manifold specification sheet.)

Symbol	Port size
C4	With ø4 One-touch fitting
C6	With ø6 One-touch fitting
C8	With ø8 One-touch fitting

Symbol	Protocol	Stations
0	Without SI unit	—
Q	DeviceNet™ System	Max.16 stations
V	CC-Link	

Symbol	Option
Nil	None
B Note 2)	With back pressure check valve
D	DIN rail mounting
D□ Note 3)	DIN rail length specified (□: Stations 02 to 16)
K Note 4)	Special wiring specifications (Except double wiring)
N	With name plate
R Note 5)	With external pilot
S	Direct EXH outlet with built-in silencer
W Note 6)	Enclosure: Dust-tight, Water-jet-proof (IP65)

Note 1) When two or more symbols are specified, indicate them alphabetically.  
Example) -BRS.  
Note 2) Models with a suffix "B" have check valves for prevention of back pressure at all manifold stations. When a back pressure check valve is desired, and is to be installed only in certain manifold stations, specify the mounting position by means of the manifold specification sheet.  
Note 3) The number of stations that may be displayed is longer than the manifold number of stations.  
Note 4) Specify the wiring specifications by means of the manifold specification sheet.  
Note 5) Indicate "R" for the valve with external pilot.  
Note 6) Refer to "Dimensions" of the standard products for SI unit and valve, in case of "W" (Dust-tight, Water-jet-proof).

Symbol	Protocol	SI unit part no.
Q	DeviceNet™	EX120-SDN1-X220
V	CC-Link	EX120-SMJ1-X220

Symbol	Protocol	SI unit part no.
Q	DeviceNet™	EX124D-SDN1-X220
V	CC-Link	EX124D-SMJ1-X220

## How to Order Valves

25A-VQ 2 1 0 1 - 5 - - 1 -

Series compatible with secondary batteries

Series  
2 VQ2000

Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A	4-position dual port (N.C./N.C.)
B	4-position dual port (N.O./N.O.)
C	4-position dual port (N.C./N.O.)

Seal type

1 Rubber seal

CE-compliant

Nil	—
Q	CE-compliant

Manual override

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
C	Locking type (Manual)
D	Slide locking type (Manual)

Enclosure

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

Coil voltage

5	24 VDC; With indicator light/ surge voltage suppressor
---	--

Function

Symbol	Specifications	DC
Nil	Standard	(0.4 W) ○
B	High speed response type	(0.95 W) ○
N Note 1)	Negative common	○
R Note 1)	External pilot	○

Note 1) External pilot and negative common specifications are the same as standard products.

Note 2) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Sub-plate Single Unit

## Series 25A-VQ2000



### How to Order

Note) For CE-compliant models,  
DC-type only.

In the case of **Valve** + **Sub-plate**

**25A - VQ2**

1	0
---	---

1	5
---	---

**W**

1	02
---	----

 - 

--	--

 - 

--	--

Series compatible with  
secondary batteries

Entry is the same as  
standard products.

Enclosure

Nil	Dustproof
W Note 1)	Dust-tight/Water-jet-proof type (IP65)

Note 1) Valves are IP65 specifications.  
Note 2) When the valve is a standard (dust-protected) specification, it is not compatible with 200 or 220 VAC.

• CE-compliant

Nil	—
Q	CE-compliant

Note) For CE-compliant models,  
DC-type only.

• Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

• Port size

02	1/4
----	-----

In the case of **Sub-plate** alone

**25A - VQ2000 - PW - 02**

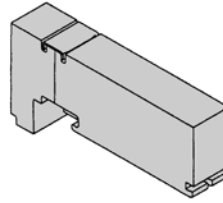
\* Specifications and dimensions for the 25A-series are the same as standard products.

## Manifold Options

### Blanking plate assembly

#### 25A-VVQ2000V-10A-1

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



\* Specifications and dimensions for the 25A-series are the same as standard products.

### SI Unit Part No.

Description	SI unit part no.	Note
EX124 SI unit	<b>EX124D-SMJ1-X220</b>	CC-Link
	<b>EX124D-SDN1-X220</b>	DeviceNet™
EX120 SI unit	<b>EX120-SMJ1-X220</b>	CC-Link (VQ2000/Without option "W")
	<b>EX120-SDN1-X220</b>	DeviceNet™ (VQ2000/Without option "W")

### One-touch Fittings Part No.

Port size		One-touch fitting part no.
Cylinder port	Metric size	ø4 One-touch fitting (Straight type) <b>90-VVQ1000-51A-C4</b>
		ø6 One-touch fitting (Straight type) <b>90-VVQ1000-51A-C6</b>
		ø8 One-touch fitting (Straight type) <b>90-VVQ1000-51A-C8</b>
1 (P), 3 (R) port	Metric size	ø10 One-touch fitting (Straight type) <b>90-VVQ2000-51A-C10</b>

Directional  
Control Valves

Air Cylinders

Related  
Products

Rotary  
Actuators

Air Grippers

Vacuum  
Equipment

Air Preparation  
Equipment

Clean  
Air Filters

Air Filters/Pressure  
Control Equipment

Fittings/Flow  
Control Equipment

Detection  
Switches

Fluid Control  
Equipment

Electric  
Actuators

Auto  
Switches

# Plug-in/Plug Lead: Single Unit Base Mounted

## Series 25A-VQ4000

### How to Order Valves



**Body**

0: Plug-in sub-plate

**Porting specifications**

Nil	Side ported
B	Bottom ported

**Port size**

Nil	Without sub-plate (For manifold)
02	Rc 1/4
03	Rc 3/8

Note) Thread standard is the same as standard products.

**Plug-in** 25A-VQ4 1 0 1

**Plug lead** 25A-VQ4 2 5 1

**Series compatible with secondary batteries**

**Type of actuation**

1	2-position single
2	Rubber/2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6 (Note)	3-position double check

Note) For double check style, refer to the Best Pneumatics No. 1.

**Body**

5: Plug lead sub-plate

**Seal type**

1	Rubber seal
---	-------------

**Function**

Nil	Standard type (1 W)
Y (1)	Low wattage type (0.5 W)
R (2)	External pilot

Note 1) Applicable to DC specifications. Please select when you expect to energize the unit for extended periods of time.

Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.

Note 3) When two or more symbols are specified, indicate them alphabetically.

**Enclosure**

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

**CE-compliant**

Nil	—
Q	CE-compliant

**Manual override**

Nil	Non-locking push type (Tool required)
B	Slotted locking type (Tool required)

**Light/Surge voltage suppressor**

Nil	Yes
E	Without light, with surge voltage suppressor

**Electrical entry**

G	Lead wire length 0.6 m
H	Lead wire length 1.5 m

**Coil voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

### How to Order Sub-plates



25A-VQ4000 - [ ] - [ ] - [ ] - [ ] - [ ]

**Series compatible with secondary batteries**

**Electrical entry**

P	Plug-in conduit terminal
S	Plug lead

**Porting specifications**

Nil	Side ported
B	Bottom ported (1)

Note 1) For bottom ported port size is Rc 1/4 only.

Note 2) Thread standard is the same as standard products.

**CE-compliant**

Nil	—
Q	CE-compliant

**Enclosure**

Nil	Dustproof
W (Note)	Dust-tight/Water-jet-proof type

Note) It is not necessary for plug lead type.

**Port size**

02	Rc1/4
03	Rc3/8

\* Specifications and dimensions for the 25A-series are the same as standard products.





# Plug-in Unit/Base Mounted F Kit (D-sub connector kit)

## Series 25A-VQ4000



### How to Order Manifold

**25A – VV5Q 4 1 – 08 C8 F U 1 – –**

- Series compatible with secondary batteries**
  - Series: 4 VQ4000
- Manifold**: 1 Plug-in unit
- Stations**

01	1 station
⋮	⋮
18	18 stations
- Cylinder port**

C6	With One-touch fitting for ø6
C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

Note) As a semi-standard specification, the maximum number of stations can be increased by special wiring specifications.
- CE-compliant**

Nil	—
Q	CE-compliant
- Option**

Symbol	Option
Nil	None
K (1)	Special wiring specifications (Except double wiring)

Note 1) Specify the wiring specifications on the manifold specification sheet.  
Note 2) Refer to the standard products for with control unit.
- Cable (Length)**

0	Without cable
1	Cable length 1.5 m
2	Cable length 3 m
3	Cable length 5 m
- Connector entry direction**

D	D side entry
U	U side entry

### How to Order Valves

**25A – VQ 4 1 0 1 – 5 – –**

- Series compatible with secondary batteries**
  - Series: 4 VQ4000
- Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6	3-position double check
- Seal type**: 1 Rubber seal
- Function**

Nil	Standard (1 W)
Y (1)	Low wattage type (0.5 W)
R (2)	External pilot
- CE-compliant**

Nil	—
Q	CE-compliant
- Manual override**

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
- Light/Surge voltage suppressor**

Nil	Yes
E	Without light, with surge voltage suppressor
- Coil voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

Note 1) Applicable to DC specifications. Please select when you expect to energize the unit for extended periods of time.

Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.

Note 3) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Plug-in Unit/Base Mounted T Kit (Terminal block box kit)

## Series 25A-VQ4000



### How to Order Manifold

**25A – VV5Q 4 1 – 08 C8 T O – [ ] – [ ]**

• Series compatible with secondary batteries

• Series

4	VQ4000
---	--------

• Manifold

1	Plug-in unit
---	--------------

• Stations

03	3 stations
⋮	⋮
18	18 stations

Note) 2 stations are used for mounting the terminal block box. The number of stations is the number of manifold valves plus 2 stations for the terminal block box. For 13 stations or more, specify the wiring specifications by means of the manifold specification sheet.

• CE-compliant

Nil	—
Q	CE-compliant

• Option

Symbol	Option
Nil	None
K <sup>(2)</sup>	Special wiring specifications (Except double wiring, for 13 stations or more)
N <sup>(3)</sup>	Name plate
W	IP65 enclosure

Note 1) When two or more symbols are specified, indicate them alphabetically. Example) -KM  
Note 2) Specify the wiring specifications on the manifold specification sheet.  
Note 3) Name plate is inlaid in the terminal block cover.  
Note 4) With control unit is the same as standard products.

• Box mounting position

O	U side mounting
D	D side mounting

• Cylinder port

C6	With One-touch fitting for ø6
C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

Note) As a semi-standard specification, the maximum number of stations can be increased by special wiring specifications.



### How to Order Valves

**25A – VQ 4 1 0 1 [ ] – 5 [ ] [ ] [ ] – [ ]**

• Series compatible with secondary batteries

• Series

4	VQ4000
---	--------

• Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6	3-position double check

• Seal type

1	Rubber seal
---	-------------

• Function

Nil	Standard (1 W)
Y <sup>(1)</sup>	Low wattage type (0.5 W)
R <sup>(2)</sup>	External pilot

Note 1) Applicable to DC specifications. Please select when you expect to energize the unit for extended periods of time.  
Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.  
Note 3) When two or more symbols are specified, indicate them alphabetically.

• CE-compliant

Nil	—
Q	CE-compliant

• Enclosure

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

• Manual override

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)

• Light/Surge voltage suppressor

Nil	Yes
E	Without light, with surge voltage suppressor

• Coil voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug-in Unit/Base Mounted L Kit (Lead wire cable)

## Series 25A-VQ4000



[Option]

### How to Order Manifold

**25A – VV5Q 4 1 – 08 C8 L D – – –**

• Series compatible with secondary batteries

**Series**

4	VQ4000
---	--------

**Manifold**

1	Plug-in unit
---	--------------

**Stations**

01	1 station
⋮	⋮
16	16 stations

**Cylinder port**

C6	With One-touch fitting for ø6
C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

**CE-compliant**

Nil	—
Q	CE-compliant

**Option**

Symbol	Option
Nil	None
W	IP65 enclosure

**Cable (Length)**

0	Cable length 0.6 m
1	Cable length 1.5 m
2	Cable length 3 m

**Connector locations**

D	D side entry
U	U side entry



[Option]

### How to Order Valves

**25A – VQ 4 1 0 1 – 5 – – –**

• Series compatible with secondary batteries

**Series**

4	VQ4000
---	--------

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6	3-position double check

**Seal type**

1	Rubber seal
---	-------------

**Function**

Nil	Standard (1 W)
Y <sup>(1)</sup>	Low wattage type (0.5 W)
R <sup>(2)</sup>	External pilot

**CE-compliant**

Nil	—
Q	CE-compliant

**Enclosure**

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

**Manual override**

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)

**Light /Surge voltage suppressor**

Nil	Yes
E	Without light, with surge voltage suppressor

**Coil voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

Note 1) Applicable to DC specification. Please select when you expect to energize the unit for extended periods of time.

Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.

Note 3) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug-in Unit/Base Mounted S Kit (Serial transmission unit) Series 25A-VQ4000

Note) Refer to "SI Unit Part No." when ordering the CE-compliant SI unit.



## How to Order Manifold

**25A - VV5Q 4 1 - 08 C8 S D V - [ ] - [ ]**

Series compatible with secondary batteries

**Series**

4	VQ4000
---	--------

**Manifold**

1	Plug-in unit
---	--------------

**Stations**

03	3 stations
⋮	⋮
18	18 stations

Note) 2 stations are used for mounting SI unit. The number of stations is the number of manifold valves plus 2 stations for SI unit. For 11 stations or more, specify the wiring specifications by means of the manifold specification sheet.

**Cylinder ports**

C6	With One-touch fitting for ø6
C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

**SI unit**

0	Without SI unit
Q	DeviceNet™
V	CC-Link

**SI unit mounting position**

D	D side mounting
U	U side mounting

**CE-compliant**

Nil	—
Q	CE-compliant

**Option**

Symbol	Option
Nil	None
K (2)	Special wiring specifications (Except double wiring, for 11 stations or more)
W	IP65 enclosure

Note 1) When two or more symbols are specified, indicate them alphabetically. Example) -KW  
 Note 2) Specify the wiring specifications in the manifold specification sheet.  
 Note 3) With control unit is the same as standard products.  
 Note 4) The release valve and the pressure switch on the manifold with control unit are connected to another power supply. Cable length is 0.6 m for L kit.



## How to Order Valves

**25A - VQ 4 1 0 1 [ ] - 5 [ ] [ ] [ ] [ ]**

Series compatible with secondary batteries

**Series**

4	VQ4000
---	--------

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6	3-position double check

**Seal type**

1	Rubber seal
---	-------------

**Function**

Nil	Standard (1 W)
Y (1)	Low wattage type (0.5 W)
R (2)	External pilot

**CE-compliant**

Nil	—
Q	CE-compliant

**Enclosure**

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)

**Manual override**

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)

**Light /Surge voltage suppressor**

Nil	Yes
E	Without light, with surge voltage suppressor

**Coil voltage**

5	24 VDC
---	--------

Note 1) Applicable to DC specifications. Please select when you expect to energize the unit for extended periods of time.  
 Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.  
 Note 3) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Plug Lead Unit/Base Mounted C Kit (Connector kit)



## Series 25A-VQ4000

### How to Order Manifold

**25A – VV5Q 4 5 – 08 C8 C – W –**

- Series compatible with secondary batteries
- CE-compliant
 

Nil	—
Q	CE-compliant
- Option
 

Symbol	Option
Nil	None
W	IP65 enclosure
- Control unit  
Refer to the standard products.
- Kit type  
**C** kit (Connector)

**Series**

4	VQ4000
---	--------

**Manifold**

5	Plug lead unit
---	----------------

**Stations**

01	1 station
⋮	⋮
16	16 stations

**Cylinder port**

C6	With One-touch fitting for ø6
C8	With One-touch fitting for ø8
C10	With One-touch fitting for ø10
C12	With One-touch fitting for ø12
02	Rc 1/4
03	Rc 3/8
B	Bottom ported Rc 1/4
CM	Mixed

**C** Connector kit Max. 16 stations

Refer to the Best Pneumatics No. 1 for wiring specifications.

### How to Order Valves

**25A – VQ 4 1 5 1 – 5 G –**

- Series compatible with secondary batteries
- CE-compliant
 

Nil	—
Q	CE-compliant
- Enclosure
 

Nil	Dustproof
W	Dust-tight/Water-jet-proof type (IP65)
- Manual override
 

<b>Nil:</b> Non-locking push type (Tool required)	<b>B:</b> Locking type (Tool required)
--	---
- Light/Surge voltage suppressor
 

Nil	Yes
E	Without light, with surge voltage suppressor
- Electrical entry
 

Grommet	<b>G</b> Lead wire length 0.6 m	
	<b>H</b> Lead wire length 1.5 m	
- Coil voltage
 

1	100 VAC (50/60 Hz)	4	220 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)	5	24 VDC
3	110 VAC (50/60 Hz)	6	12 VDC

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
6	3-position double check

**Seal type**

1	Rubber seal
---	-------------

**Function**

Nil	Standard (1 W)
Y <sup>(1)</sup>	Low wattage type (0.5 W)
R <sup>(2)</sup>	External pilot

Note 1) Applicable to DC specifications. Please select when you expect to energize the unit for extended periods of time.  
 Note 2) External pilot specifications are the same as standard products. Combination of external pilot and perfect interface is not possible.  
 Note 3) When two or more symbols are specified, indicate them alphabetically.

\* Specifications and dimensions for the 25A-series are the same as standard products.



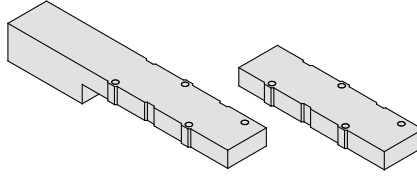
Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Series 25A-VQ4000

## Manifold Options

### Blanking plate assembly

- 25A-VVQ4000-10A-1 (Plug-in type)
- 25A-VVQ4000-10A-5 (Plug lead type)



It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.

\* Specifications and dimensions for the 25A-series are the same as standard products.

### SI Unit Part No.

Description	SI unit part no.	Note
EX124 SI unit	<b>EX124D-SMJ1-X220</b>	CC-Link/D side mounting
	<b>EX124D-SDN1-X220</b>	DeviceNet™/D side mounting
	<b>EX124U-SMJ1-X220</b>	CC-Link/U side mounting
	<b>EX124U-SDN1-X220</b>	DeviceNet™/U side mounting

### One-touch Fittings Part No.

		Port size	One-touch fittings part no.
Cylinder port	Metric size	ø6 One-touch fitting (Straight type)	<b>90-VVQ4000-50B-C6</b>
		ø8 One-touch fitting (Straight type)	<b>90-VVQ4000-50B-C8</b>
		ø10 One-touch fitting (Straight type)	<b>90-VVQ4000-50B-C10</b>
		ø12 One-touch fitting (Straight type)	<b>90-VVQ4000-50B-C12</b>



# Plug-in Unit

## Series 25A-SQ2000



### How to Order Manifold

25A – SS5Q23 – 08 FD2 – D □ – □ – □

Series compatible with secondary batteries

Stations	
01	1 station
⋮	⋮
16 (Note)	16 stations

Note) The maximum number of stations depends on the type of electrical entries.

#### Manifold mounting

D	DIN rail mounting
E (Note)	Direct mounting

#### Option

Nil	None
02 to 16 <sup>(1)</sup>	DIN rail length specified
B <sup>(2)</sup>	Back pressure check valve
K <sup>(3)</sup>	Special wiring specifications (Except double wiring)
N	With name plate (Side ported only)
R	External pilot specifications

Note 1) Specify DIN rail length with "D□" at the end. (Enter the number of stations inside □.)

The number of stations that may be displayed is longer than the manifold number of stations.

Example: -D08

Note 2) When installing back pressure check valves only on the stations required, enter the part number and specify the mounting stations on a manifold specification sheet.

Note 3) Standard wiring specifications are for double wiring. Indicate wiring specifications for single wiring or mixed single and double wiring, or when exceeding the standard maximum number of stations. (Except L kit.)

Note 4) For specifying two or more options, enter them alphabetically. Example: -BKN

\* Manifold option parts are the same as standard products.

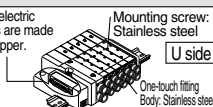
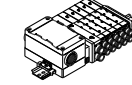
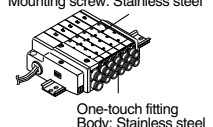
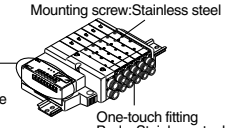
#### CE-compliant

Nil	—
Q	CE-compliant

#### 1(P), 3(R) port size

Nil	1(P), 3(R) port One-touch fittings for ø10
00T	1(P), 3(R) port One-touch fittings for ø3/8"

#### Electrical entry

Kit type	Lead wire connector location	Cable specifications	Station	Max. number of stations for special wiring specifications	Max. number <sup>(2)</sup> of solenoids
<b>F kit</b> The electric parts are made of copper. Mounting screw: Stainless steel  D-sub connector kit	D side	FD0	1 to 12 stations	16 stations	24
		FD1			
		FD2			
		FD3			
<b>T kit</b> Terminal block box kit 	TD0	D side	1 to 10 stations	16 stations	16
<b>L kit</b> Mounting screw: Stainless steel  Lead wire kit	D side	LD0	1 to 12 stations	—	—
		LU0			
		LD1			
		LU1			
		LD2			
		LU2			
<b>S kit</b> Mounting screw: Stainless steel The electric parts are made of copper.  Serial transmission kit EX140 integrated-type (for output) serial transmission system <sup>(3)</sup>	D side	SDQ	1 to 8 stations	16 stations	16
		SDV			

Note 1) The maximum number of stations should not be more than the maximum number of solenoids. (The number of solenoids are counted as: 1 for single solenoids and 2 for type 3P and 4P double solenoids.)

Note 2) Refer to the Best Pneumatics No. 1 for the details of EX140 integrated-type (for output) serial transmission system. Refer to "SI unit part no." when ordering the CE-compliant SI unit.

#### SI unit part no.

Symbol	Protocol type	SI unit part no.	Page
SDQ	DeviceNet™	EX140-SDN1-X220	P.58
SDV	CC-Link	EX140-SMJ1-X220	

#### Blanking plate assembly

25A-SSQ2000-10A-3



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

Electric Actuators

Auto Switches

## How to Order Valves

25A—SQ2 1 3 1 — 5 — C6 — — —

Series compatible with secondary batteries

CE-compliant

Nil	—
Q	CE-compliant

### Type of actuation

1	2-position single
2	2-position double (Latching) (Metal seal, Rubber seal)
	2-position double (Double solenoid) <sup>(1)</sup> (Rubber seal)
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
<sup>(2)</sup> A	4-position dual 3 port valve (N.C./N.C.)
<sup>(2)</sup> B	4-position dual 3 port valve (N.O./N.O.)
<sup>(2)</sup> C	4-position dual 3 port valve (N.C./N.O.)

Note 1) For double solenoid specification, the function symbol below is "D".

Note 2) Only rubber seal types are applicable.

### Seal type

1	Rubber seal
---	-------------

### Function

Nil	Standard (1.0 W DC)
D	2-position double (Double solenoid specifications) (Latching type: Nil)
N	Negative common
Y <sup>(1)(2)</sup>	Low wattage type (0.5 W DC)
R <sup>(3)</sup>	External pilot specifications

Note 1) Except double (latching) type.

Note 2) Please select when you expect to energize the unit for extended periods of time.

Note 3) Except dual 3 port valves.

Note 4) When two or more symbols are specified, indicate them alphabetically.

### With/Without manifold block

Nil	M	MB
Without manifold block	With manifold block	With manifold block, built-in back pressure check valve
	* Lead wire is not included.	* Lead wire is not included.
<ul style="list-style-type: none"> <li>When ordering with manifolds</li> <li>When only valves are required.</li> </ul>	For adding stations	

### Port plug mounting port

Nil	None
A	Port 4(A)
B	Port 2(B)

### Cylinder port

C4	One-touch fittings for ø4	Side ported	
C6	One-touch fittings for ø6		
C8	One-touch fittings for ø8		
L4	One-touch fittings for ø4	Top <sup>(1)</sup> ported	
L6	One-touch fittings for ø6		
L8	One-touch fittings for ø8		

Note 1) Can be changed to side ported configuration.

Note 2) Refer to the standard products for the inch-size One-touch fittings.

### Manual override

Nil	B Note)	D Note)
Non-locking push type (Tool required)	Locking type (Tool required)	Slide locking type (Manual type) * Only side ported type applicable

Note) Except double (latching) type.

### Coil voltage

5	24 VDC
6	12 VDC

Note 1) Light/Surge voltage suppressor is built-in.

Note 2) S kit: 24 VDC only

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Plug Lead Unit

## Series 25A-SQ2000



### How to Order Manifold

25A – SS5Q24 – 08 FD2 – D □ – □ – □

• Series compatible with secondary batteries

• CE-compliant

Nil	—
Q	CE-compliant

• 1(P), 3(R) port size

Nil	1(P), 3(R) port, One-touch fittings for ø10
00T	1(P), 3(R) port, One-touch fittings for ø3/8"

Stations •

01	1 station
⋮	⋮
16 (Note)	16 stations

Note) The maximum number of stations depends on the type of electrical entries.

• Option

Nil	None
02 to 16 <sup>(1)</sup>	DIN rail length specified
B	Back pressure check valve
K <sup>(2)</sup>	Special wiring specifications (Except double wiring)
N	With name plate (Side ported only)
R	External pilot specifications

Note 1) Specify DIN rail length with "D□" at the end. (Enter the number of stations inside □.)

The number of stations that may be displayed is longer than the manifold number of stations.

Example: -D08

Note 2) When installing back pressure check valves only on the stations required, enter the part number and specify the mounting stations on a manifold specification sheet.

Note 3) Standard wiring specifications are for double wiring. Indicate wiring specifications for single wiring or mixed single and double wiring, or when exceeding the standard maximum number of stations. (Except C kit.)

Note 4) For specifying two or more options, enter them alphabetically. Example: -BKN

\* Manifold option parts are the same as standard products.

Manifold mounting •

D	DIN rail mounting
E (Note)	Direct mounting

Note) Type "E" is only available with a C kit.

Electrical entry •

Kit type	Lead wire connector location	Cable specifications	Stations	Max. number of stations for special wiring specifications	Max. number of solenoids <sup>(1)</sup>
<b>F kit</b> The electric parts are made of copper. D-sub connector kit 	D side	FD0	1 to 12 stations	16 stations	24
		FD1			
		FD2			
		FD3			
<b>C kit</b> Connector kit 	C	—	1 to 16 stations	—	—

Note 1) The maximum number of stations should not be more than the maximum number of solenoids. (The number of solenoids are counted as: 1 for single solenoids and 2 for type 3P and 4P double solenoids.)

\* Refer to the Best Pneumatics No. 1 for manifold spare parts.

### Blanking plate assembly

25A-SSQ2000-10A-4

\* Specifications and dimensions for the 25A-series are the same as standard products.

## How to Order Valves

25A-SQ2 1 4 1 [ ] - 5 L [ ] - C6 - [ ] - [ ] - [ ]

Series compatible with secondary batteries

### Type of actuation

1	2-position single
2	2-position double (Latching) (Metal seal, Rubber seal)
	2-position double (Double solenoid) <sup>(1)</sup> (Rubber seal)
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
A <sup>(2)</sup>	4-position dual 3 port valve (N.C./N.C.)
B <sup>(2)</sup>	4-position dual 3 port valve (N.O./N.O.)
C <sup>(2)</sup>	4-position dual 3 port valve (N.C./N.O.)

Note 1) For double solenoid specification, the function symbol below is "D".

Note 2) Only rubber seal types are applicable.

### Seal type

1	Rubber seal
---	-------------

### Function

Nil	Standard (1.0 W DC)
D	2-position double (Double solenoid specifications) (Latching type: Nil)
N	Negative COM
Y <sup>(1)(2)</sup>	Low wattage type (0.5 W DC)
R <sup>(3)</sup>	External pilot specifications

Note 1) Except double (latching) type.

Note 2) Please select when you expect to energize the unit for extended periods of time.

Note 3) Except dual 3 port valves.

Note 4) When two or more symbols are specified, indicate them alphabetically.

### Coil voltage

5	24 VDC
6	12 VDC

Note) Light/Surge voltage suppressor is built-in.

### CE-compliant

Nil	—
Q	CE-compliant

### With/Without manifold block

Nil	M	MB
Without manifold block	With manifold block	With manifold block, built-in back pressure check valve
* Lead wire is not included.		* Lead wire is not included.
<ul style="list-style-type: none"> <li>When ordering with manifolds</li> <li>When only valves are required.</li> </ul>		For adding stations

### Port plug mounting port

Nil	None
A	Port 4(A)
B	Port 2(B)

### Cylinder port

C4	One-touch fitting for ø4	Side ported	
C6	One-touch fitting for ø6		
C8	One-touch fitting for ø8		
L4	One-touch fitting for ø4	Top ported <sup>(1)</sup>	
L6	One-touch fitting for ø6		
L8	One-touch fitting for ø8		

Note 1) Can be changed to side ported configuration.

Note 2) Refer to the standard products for the inch-size One-touch fittings.

### Manual override

Nil	B Note)	D Note)
Non-locking push type (Tool required)	Locking type (Tool required)	Slide locking type (Manual type) * Only side ported type applicable

Note) Except double (latching) type.

### Electrical entry

L	LO
Plug connector type with 300 mm lead wire	Plug connector type without connector
	For F, P, J kit manifolds Note)

Note) Indicate "LO" when ordering centralized wiring type manifolds, F, P, and J kits, since the lead wire will be attached to the manifold side.

\* Specifications and dimensions for the 25A-series are the same as standard products.

## SI Unit Part No.

Description	SI unit part no.	Note
EX140 SI unit	<b>EX140-SMJ1-X220</b>	CC-Link
	<b>EX140-SDN1-X220</b>	DeviceNet™

## One-touch Fittings Part No.

Port size		One-touch fittings part no.
Cylinder port	Metric size	ø4 One-touch fitting (Straight type)
		ø6 One-touch fitting (Straight type)
		ø8 One-touch fitting (Straight type)
1(P), 3(R) port	Metric size	ø10 One-touch fitting (Straight type)

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches

# 5 Port Solenoid Valve

## Series 25A-VQZ1000

### Single Unit



#### How to Order Valves

25A - VQZ 1 1 5 1 [ ] - 5 M [ ] 1 - 01 - [ ]

Series compatible with secondary batteries

Series

1	VQZ1000 body width 10 mm
---	--------------------------

Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
8	3-port for mixture mounting N.C.
9	3-port for mixture mounting N.O.

Body type

5	Base mounted
---	--------------

Seal type

1	Rubber seal
---	-------------

Function

Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	○
B	High speed response type	(0.9 W) ○	—
R	External pilot type	○	○
BR	High speed response/External pilot type	(0.9 W) ○	—

CE-compliant



Nil	—
Q	CE-compliant

Note) DC-type only.






Port size

Symbol	Port size
Nil	Without sub-plate
01	Rc1/8

Manual override

<p>Nil: Non-locking push type (Tool required)</p> 	<p>B: Locking type (Tool required)</p> 
--	--

Electrical entry

G: Grommet (DC specification)	L: L-type plug connector with lead wire	LO: L-type plug connector without connector	M: M-type plug connector with lead wire	MO: M-type plug connector without connector
	With light/surge voltage suppressor	With light/surge voltage suppressor	With light/surge voltage suppressor	With light/surge voltage suppressor
				

Coil voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC [115 VAC] (50/60 Hz)
4	220 VAC [230 VAC] (50/60 Hz)
5	24 VDC
6	12 VDC



Use standard (DC) specification for continuous duty.

\* Specifications and dimensions for the 25A-series are the same as standard products.



Base Mounted  
Plug Lead Unit

# 5 Port Solenoid Valve

## Series 25A-VQZ1000

### Manifold Connector Kit



#### How to Order Manifold

**25A - VV5QZ 1 5 - 08 C6 C - R -**

Series compatible with secondary batteries

**Series**  
1 VQZ1000

**Manifold type**  
5 Base mounted

**Stations**

02	2 stations
...	...
20	20 stations

**Port size [4(A), 2(B) port]**

Symbol	Port size
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M5	M5 thread
CM (Note)	Mixture of port sizes

Note) Specify port mixture/with port plug by the manifold specification sheet.  
Port mixture and port plug are available only for One-touch fitting type.

**CE-compliant**

Nil	—
Q	CE-compliant

**Option**

Nil	None
R	External pilot type

**Kit type**  
C Connector

#### How to Order Valves

**25A - VQZ 1 1 5 1 - 5 M 1 -**

Series compatible with secondary batteries

**Series**  
1 VQZ1000 body width 10 mm

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
8	3-port for mixture mounting N.C.
9	3-port for mixture mounting N.O.

**Body type**  
5 Base mounted

**Seal type**  
1 Rubber seal

**Function**

Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	○
B	High speed response type	(0.9 W) ○	—
R	External pilot type	○	○
BR	High speed response/ External pilot type	(0.9 W) ○	—

**CE-compliant**

Nil	—
Q	CE-compliant

Note) DC-type only.

**Manual override**

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)

**Electrical entry**

Symbol	Electrical entry	Light/surge voltage suppressor
G	Grommet (DC specification)	None
L	L-type plug connector with lead wire	Yes
LO	L-type plug connector without connector	
M	M-type plug connector with lead wire	
MO	M-type plug connector without connector	

**Coil voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC [115 VAC] (50/60 Hz)
4	220 VAC [230 VAC] (50/60 Hz)
5	24 VDC
6	12 VDC



**Caution**  
Use standard (DC) specification for continuous duty.



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional  
Control Valves

Air Cylinders

Related  
Products

Rotary  
Actuators

Air Grippers

Vacuum  
Equipment

Air Preparation  
Equipment

Clean  
Air Filters

Air Filters/Pressure  
Control Equipment

Fittings/Flow  
Control Equipment

Detection  
Switches

Fluid Control  
Equipment

Electric  
Actuators

Auto  
Switches

Body Ported  
Plug Lead Unit

# 5 Port Solenoid Valve

## Series 25A-VQZ1000

### Single Unit



#### How to Order Valves

**25A-VQZ 1 1 2 1** [ ] - **5 M** [ ] 1 - **C6** - [ ] - [ ]

• Series compatible with secondary batteries

Series

1	VQZ1000 body width 10 mm
---	--------------------------

Type of actuation

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center
8	3-port for mixture mounting N.C.
9	3-port for mixture mounting N.O.

Note) 3 port for mixture mounting is only available for port size C4 or C6.

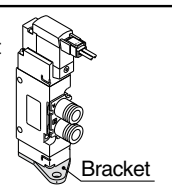
• CE-compliant

Nil	—
Q	CE-compliant

Note) DC-type only.

• Option

Nil: None  
F: With bracket (2 position single type only)



• Port size [4(A), 2(B) port]

Symbol	Port size
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M5	M5 thread

• Manual override

<p>Nil: Non-locking push type (Tool required)</p>	<p>B: Locking type (Tool required)</p>
---	--

• Electrical entry

G: Grommet (DC specification)	L: L-type plug connector with lead wire	LO: L-type plug connector without connector	M: M-type plug connector with lead wire	MO: M-type plug connector without connector
	With light/surge voltage suppressor	With light/surge voltage suppressor	With light/surge voltage suppressor	With light/surge voltage suppressor

Body type

2	Body ported
---	-------------

Seal type

1	Rubber seal
---	-------------

Function

Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	○
B	High speed response type	(0.9 W) ○	—

• Coil voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC [115 VAC] (50/60 Hz)
4	220 VAC [230 VAC] (50/60 Hz)
5	24 VDC
6	12 VDC



**Caution**  
Use standard (DC) specification for continuous duty.

\* Specifications and dimensions for the 25A-series are the same as standard products.



Body Ported  
Plug Lead Unit

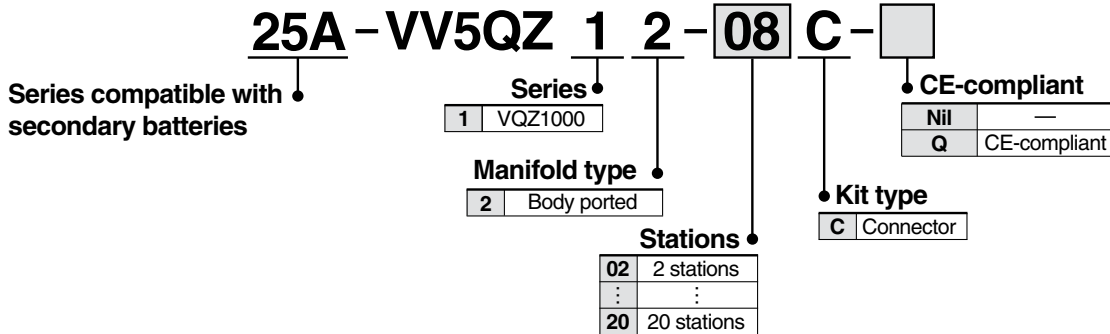
# 5 Port Solenoid Valve

## Series 25A-VQZ1000

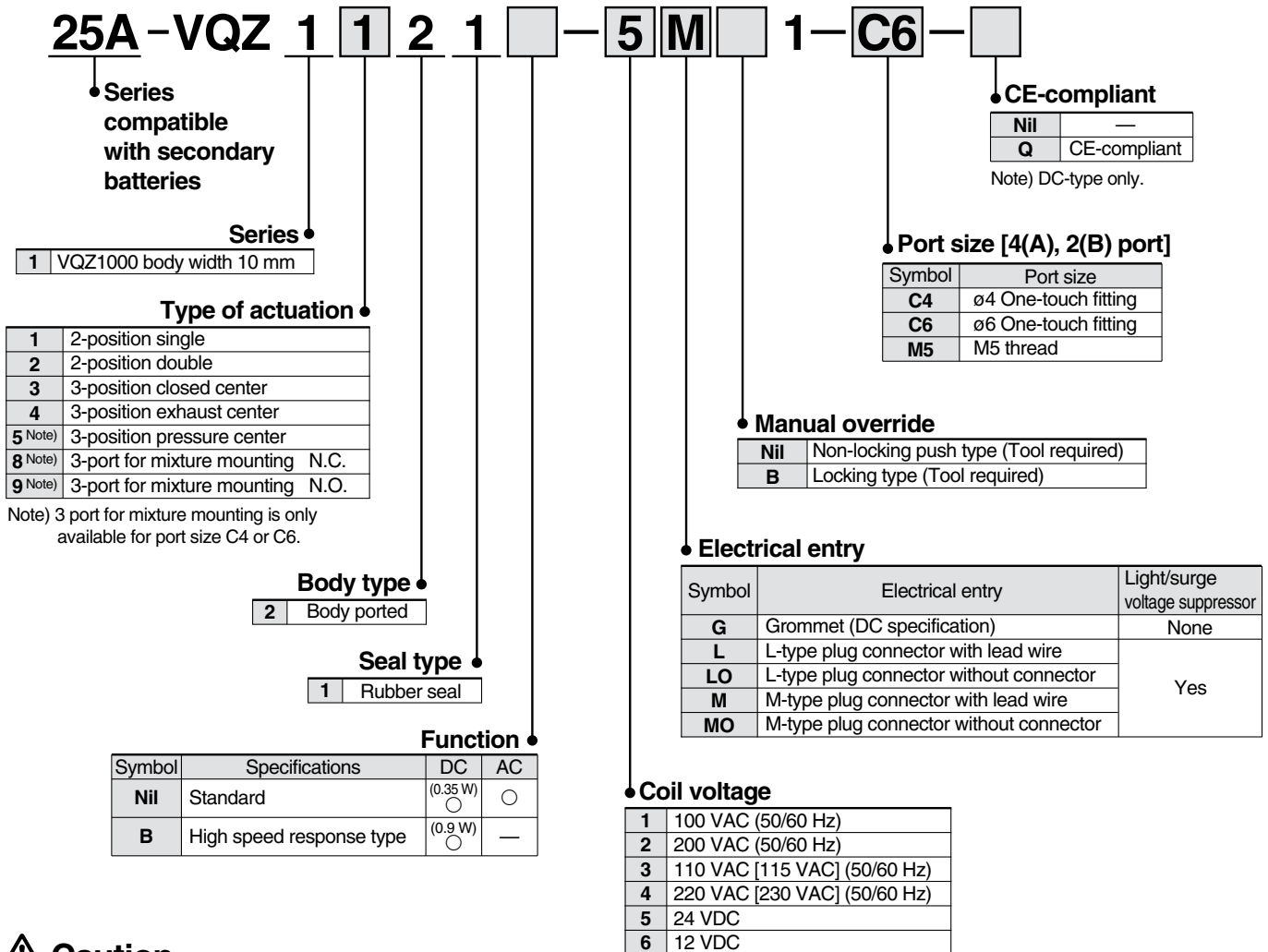
### Manifold Connector Kit



#### How to Order Manifold



#### How to Order Valves



**Caution**  
Use standard (DC) specification for continuous duty.

\* Specifications and dimensions for the 25A-series are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Plug-in Unit Base Mounted

## Series 25A-VQ1000/2000 Double check block (Separated)

### How to Order

Double check block

**25A-VQ1000-FPG-C4M5-F**

Series compatible with secondary batteries

IN side port size

M5	M5 thread
C3	ø3.2 One-touch fitting
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting

OUT side port size

M5	M5 thread
C3	ø3.2 One-touch fitting
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting

Option

Nil	None
F	With bracket
D	DIN rail mounting (For manifold)
N	Name plate

Note) When two or more symbols are specified, indicate them alphabetically.  
Example) -DN

Manifold (DIN rail mounting)

**25A-VVQ1000-FPG-06**

Series compatible with secondary batteries

When ordering a double check block, order the DIN rail mounting [-D].

Stations

01	1 station
⋮	⋮
16	16 stations

<Ordering example>

25A-VVQ1000-FPG-06...6-station manifold

\* 25A-VQ1000-FPG-C4M5-D; 3 sets  
\* 25A-VQ1000-FPG-C6M5-D; 3 sets

Double check block

Bracket Assembly

Part no.	Tightening torque
25A-VQ1000-FPG-FB	0.16 to 0.18 lbf ft [0.22 to 0.25 N·m]

Double check block

**25A-VQ2000-FPG-0101-F**

Series compatible with secondary batteries

IN side port size

01	Rc 1/8
02	Rc 1/4
C6	ø6 One-touch fitting
C8	ø8 One-touch fitting

OUT side port size

01	Rc 1/8
02	Rc 1/4
C6	ø6 One-touch fitting
C8	ø8 One-touch fitting

Option

Nil	None
D	DIN rail mounting (For manifold)
F	With bracket
N	Name plate

Note) When two or more symbols are specified, indicate them alphabetically.  
Example) -DN

Manifold (DIN rail mounting)

**25A-VVQ2000-FPG-06**

Series compatible with secondary batteries

When ordering a double check block, order the DIN rail mounting [-D].

Stations

01	1 station
⋮	⋮
16	16 stations

<Ordering Example>

25A-VVQ2000-FPG-06...6-station manifold

\* 25A-VQ2000-FPG-C6C6-D; 3 sets  
\* 25A-VQ2000-FPG-C8C8-D; 3 sets

Double check block

Bracket Assembly

Part no.	Tightening torque
25A-VQ2000-FPG-FB	0.59 to 0.74 lbf-ft [0.8 to 1.0 N·m]

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Rubber Seal 3 Port/Pilot Poppet Type

## Series 25A-VP342/542/742



### How to Order



Note) Only DIN and conduit terminal types are available for AC mode. Refer to the electrical entry for details.

Body ported **25A-VP342** **5D** **1-01** **A**

Series compatible with secondary batteries

#### Series

3	VP300
5	VP500
7	VP700

#### Pilot type

Nil	Internal pilot
R	External pilot

#### Pressure specification

Nil	Standard (102 psi [0.7 MPa])
K	High pressure type (145 psi [1.0 MPa])

#### Coil specification

Nil	Standard
T	With power saving circuit (DC only)

Note) Be sure to select the power saving circuit type when it is continuously energized for a long time.

\* "T" type is only available for DC mode. When "T" is selected, only "Z" type of light/surge voltage suppressor is available.

#### Rated voltage

DC		AC (50/60 Hz)	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
		3	110 VAC [115 VAC]
		4	220 VAC [230 VAC]
		7	240 VAC
		B	24 VAC

#### Electrical entry

	DIN terminal	DIN (EN175301-803) terminal	Conduit terminal
	[IP65 compatible]	[IP65 compatible]	[IP65 compatible]
	D: With connector	Y: With connector	T: Conduit terminal
CE-compliant	DC AC	CE CE	CE CE

#### Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

#### Type of actuation

A	N.C. (Normally closed)
B	N.O. (Normally open)

#### Bracket

Nil	Without bracket
F	With bracket

#### Port size

Symbol	Port size	VP300	VP500	VP700
01	1/8	○	—	—
02	1/4	○	○	—
03	3/8	—	○	○
04	1/2	—	—	○

#### Manual override

Nil: Non-locking push type	D: Push-turn locking slotted type	E: Push-turn locking lever type

#### Light/surge voltage suppressor

		DC	AC
Nil	Without light/surge voltage suppressor	○	○
S	With surge voltage suppressor	○	○ <sup>Note)</sup>
Z	With light/surge voltage suppressor	○	○
R	With surge voltage suppressor (Non-polar)	○	—
U	With light/surge voltage suppressor (Non-polar)	○	—

Note) There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Rubber Seal 3 Port/Pilot Poppet Type

## Series 25A-VP344/544/744



Note) Only DIN and conduit terminal types are available for AC mode. Refer to the electrical entry for details.

### How to Order

Base mounted **25A-VP 3 4 4** **5 D** **1-01** **A**

Series compatible with secondary batteries

#### Series

3	VP300
5	VP500
7	VP700

#### Pilot type

Nil	Internal pilot
R	External pilot

#### Pressure specifications

Nil	Standard (102 psi [0.7 MPa])
K	High pressure type (145 psi [1.0 MPa])

#### Coil specifications

Nil	Standard
T	With power saving circuit (DC only)

#### Rated voltage

DC		AC (50/60 Hz)	
5	24 VDC	1	100 VAC
6	12 VDC	2	200 VAC
		3	110 VAC [115 VAC]
		4	220 VAC [230 VAC]
		7	240 VAC
		B	24 VAC

Note) Be sure to select the power saving circuit type when it is continuously energized for a long time.

\* "T" type is only available for DC mode. When "T" is selected, only "Z" type of light/surge voltage suppressor is available.

#### Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

#### Type of actuation

A	N.C. (Normally closed)
B	N.O. (Normally open)

#### Port size (Sub-plate)

Symbol	Port size	VP300	VP500	VP700
Nil		Without sub-plate*		
01	1/8	○	—	—
02	1/4	○	○	—
03	3/8	—	○	○
04	1/2	—	—	○

\* With a gasket and two mounting bolts.

#### Electrical entry

	DIN terminal	DIN (EN175301-803) terminal	Conduit terminal
	[IP65 compatible]	[IP65 compatible]	[IP65 compatible]
	D: With connector	Y: With connector	T: Conduit terminal
CE-compliant	DC	CE	CE
	AC	CE	CE

#### Manual override

Nil: Non-locking push type	D: Push-turn locking slotted type	E: Push-turn locking lever type

#### Light/surge voltage suppressor

		DC	AC
Nil	Without light/surge voltage suppressor	○	○
S	With surge voltage suppressor	○	Note)
Z	With light/surge voltage suppressor	○	○
R	With surge voltage suppressor (Non-polar)	○	—
U	With light/surge voltage suppressor (Non-polar)	○	—

Note) There is no "S" type for AC mode, since a rectifier prevents surge voltage generation.

\* Specifications and dimensions for the 25A-series are the same as standard products.



# 3 Port Solenoid Valve Direct Operated Poppet Type

## Series 25A-VT317 Rubber Seal



Note) CE-compliant: For DIN terminal type.

### How to Order

25A-V T 317 - 1 G - 02 -

#### Body type

T	Body ported
O	Manifold

Series compatible with secondary batteries

#### Valve option

Nil	Standard
E*	Continuous duty type
V*	For vacuum

\* Semi-standard

#### Rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3*	110 VAC (50/60 Hz)
4*	220 VAC (50/60 Hz)
5	24 VDC
6*	12 VDC
7*	240 VAC (50/60 Hz)

Note) Applicable only for DIN terminal type.

\* Semi-standard

#### Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

#### CE-compliant

Nil	—
Q	CE-compliant*

Note) Applicable only for DIN terminal type.

#### Port size

Nil	Without port (For manifold)
02	1/4 (8A)



#### Electrical entry

		CE-compliant
G	Grommet, 300 mm lead wire	—
H	Grommet, 600 mm lead wire	—
C	Conduit	—
T	Conduit terminal	—
D	DIN terminal	●

#### Light/Surge voltage suppressor

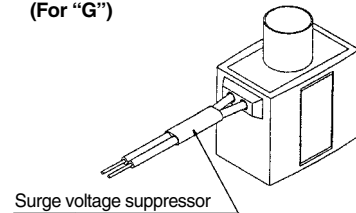
Electrical entry Symbol	G	H	C	T	D	D Only
Nil	—	—	—	—	—	●
S	● (Note)	● (Note)	● (Note)	●	●	●
Z	—	—	—	●	●	●

S: With surge voltage suppressor

Note) Refer to the figure below.

Z: With light/surge voltage suppressor

Surge voltage suppressor mounting part (For "G")



### Manifold

Model	Applicable manifold type	Accessory
VO317(-Q)	Common or individual exhaust	O-ring (KA00066, 4 pcs.) Note) Bolts (XT012-25C#1, 2 pcs.)

Note) It is not applied to "Continuous duty type". Refer to the accessories in the Best Pneumatics No. 1.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# 3 Port Solenoid Valve Direct Operated Poppet Type

## Series 25A-VG342

### Rubber Seal

#### Low power consumption

4.8 W DC (Standard type)  
2 W DC (Energy-saving type)

#### No lubrication required

#### Possible to use in vacuum or under low pressures

External pilot  
Vacuum: Up to -14.7 psi (-101.2 kPa)  
Low pressure: 0 to 29 psi (0 to 0.2 MPa)

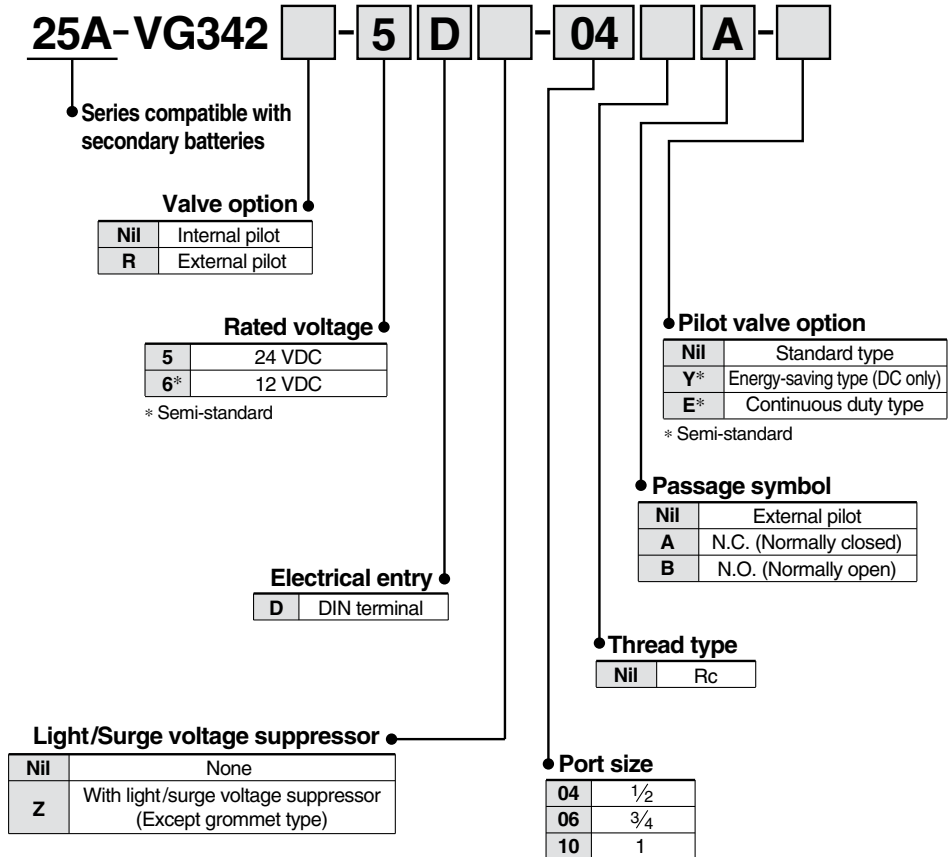
#### Changeable actuation:

N.C., N.O., or external pilot

Can be used as a selector or divider valve (External pilot)



#### How to Order



\* Specifications and dimensions for the 25A-series are the same as standard products.

# 5 Port Air Operated Valve

## Series 25A-SYA5000/7000

### How to Order

**Body ported** 25A - SYA 5 1 20 - C6

**Base mounted** 25A - SYA 5 1 40 - [ ]

Series compatible with secondary batteries

**Series**

5	SYA5000
7	SYA7000

**Series**

5	SYA5000
7	SYA7000

**Type of actuation**

1	2-position single
2	2-position double
3	3-position closed center
4	3-position exhaust center
5	3-position pressure center

**A, B port size Thread piping**

Symbol	Port size	Applicable series
01	1/8	SYA5000
02	1/4	SYA7000

**One-touch fitting (Metric size)**

Symbol	Port size	Applicable series
C4	ø4 One-touch fitting	SYA5000
C6	ø6 One-touch fitting	
C8	ø8 One-touch fitting	
C8	ø8 One-touch fitting	SYA7000
C10	ø10 One-touch fitting	

**Port size**

Symbol	Port size	Applicable series
Nil	Without sub-plate	
02	1/4 With sub-plate	SYA5000
02	1/4 With sub-plate	SYA7000
03	3/8 With sub-plate	

### How to Order Manifold Base

Same manifolds as series SY (Non plug-in style) are prepared.  
(For 20, 41 and 42 Types)

25A-SS5YA <sup>5</sup>/<sub>7</sub> -

Fill the same as 25A-SS5Y <sup>5</sup>/<sub>7</sub> .

(Refer to page 38.)

\* Specify the part numbers for valves and options together beneath the manifold base part number.

<Example>

25A-SS5YA5-42-03-02 ..... 1 set (Type 42, 3 station manifold base part no.)

\* 25A-SYA5140 ..... 1 set (Single air operated valve part no.)

\* 25A-SYA5240 ..... 1 set (Double air operated valve part no.)

\* 25A-SY5000-26-1A ..... 1 set (Blanking plate assembly part no.)

↳ The asterisk denotes the symbol for assembly.

Prefix it to the part nos. of the solenoid valve, etc.

Note) When single body ported air operated valves are ordered, manifold mounting screws and gaskets are not included. Order them separately if necessary.  
(For details, refer to page 40.)

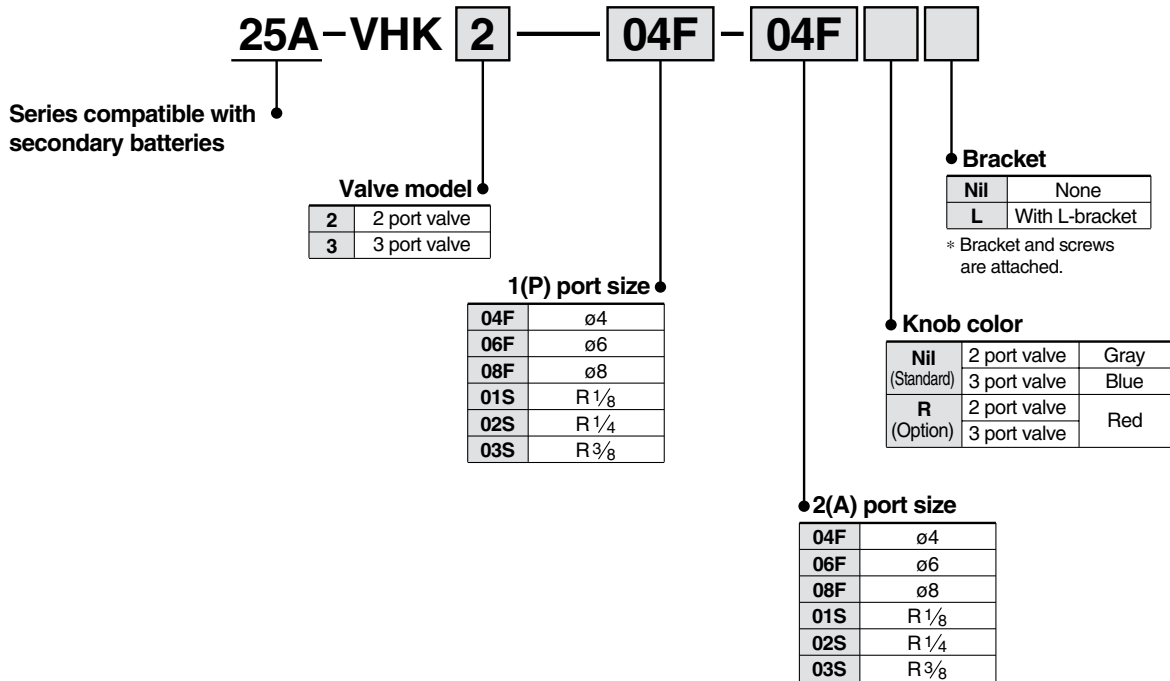
\* Specifications and dimensions for the 25A-series are the same as standard products.

# Finger Valve

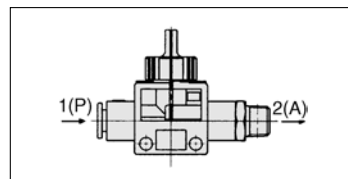
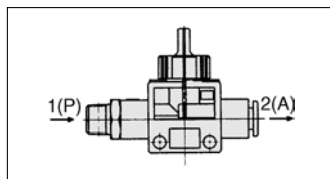
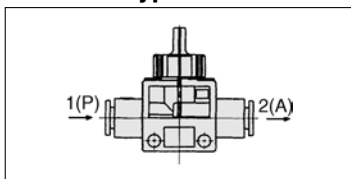
## Series 25A-VHK



### How to Order



### Standard Type



**1(P): One-touch fitting**  
**2(A): One-touch fitting**

		2(A)		
		Applicable tubing O.D. (mm)		
Applicable tubing O.D. (mm)	1(P)	ø4	ø6	ø8
	ø4	●		
	ø6	●	●	
	ø8		●	●

**1(P): Male thread**  
**2(A): One-touch fitting**

		2(A)		
		Applicable tubing O.D. (mm)		
Port size R	1(P)	ø4	ø6	ø8
	1/8	●	●	●
	1/4		●	●
	3/8		●	●

**1(P): One-touch fitting**  
**2(A): Male thread**

		2(A)		
		Port size R		
Applicable tubing O.D. (mm)	1(P)	1/8	1/4	3/8
	ø4	●		
	ø6	●	●	●
	ø8	●	●	●

\* Specifications and dimensions for the 25A-series are the same as standard products.

Auto Switches	Electric Actuators	Fluid Control Equipment	Detection Switches	Fittings/Flow Control Equipment	Air Filters/Pressure Control Equipment	Clean Air Filters	Air Preparation Equipment	Vacuum Equipment	Air Grippers	Rotary Actuators	Related Products	Air Cylinders	Directional Control Valves
---------------	--------------------	-------------------------	--------------------	---------------------------------	--	-------------------	---------------------------	------------------	--------------	------------------	------------------	---------------	----------------------------

# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CJ2 ø10, ø16



### How to Order

**25A - C D J2 L 16 - 60 [ ] Z - M9BW [ ] - B**

Series compatible with secondary batteries

#### With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

#### Mounting

B	Basic
E	Double-side bossed
D	Double clevis
L	Single foot
M	Double foot
F	Rod flange
G	Head flange

\* Mounting bracket is shipped together with the product, but not assembled.

#### Bore size

10	10 mm
16	16 mm

#### Cylinder standard stroke (mm)

10	15, 30, 45, 60, 75, 100, 125, 150
16	15, 30, 45, 60, 75, 100, 125, 150, 175, 200

\* Manufacture of intermediate strokes at 1 mm intervals is possible. (Spacers are not used.)

#### Auto switch mounting type

B	Band mounting
---	---------------

\* Refer to page 165 for auto switch mounting brackets.

#### Number of auto switches



Nil	2 pcs.
S	1 pc.
n	"n" pcs.

#### Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

#### Head cover port location

Bore size (mm)	ø10, ø16	
Symbol	Nil	Perpendicular to axis 
	R	Axial 

\* Double clevis is only available for being perpendicular to axis.

\* Double-side bossed type is only available for being perpendicular to axis.

#### Built-in Magnet Cylinder Model

Suffix the symbol "-B" (Band mounting style) to the end of part number for cylinder with auto switch.

Example	Band mounting style	25A-CDJ2B16-60Z-B
---------	---------------------	-------------------

#### Mounting Bracket Part No. for Series 25A-

Mounting bracket	Bore size (mm)	
	10	16
Foot bracket	90-CJ-L010B	90-CJ-L016B
Flange bracket	90-CJ-F010B	90-CJ-F016B

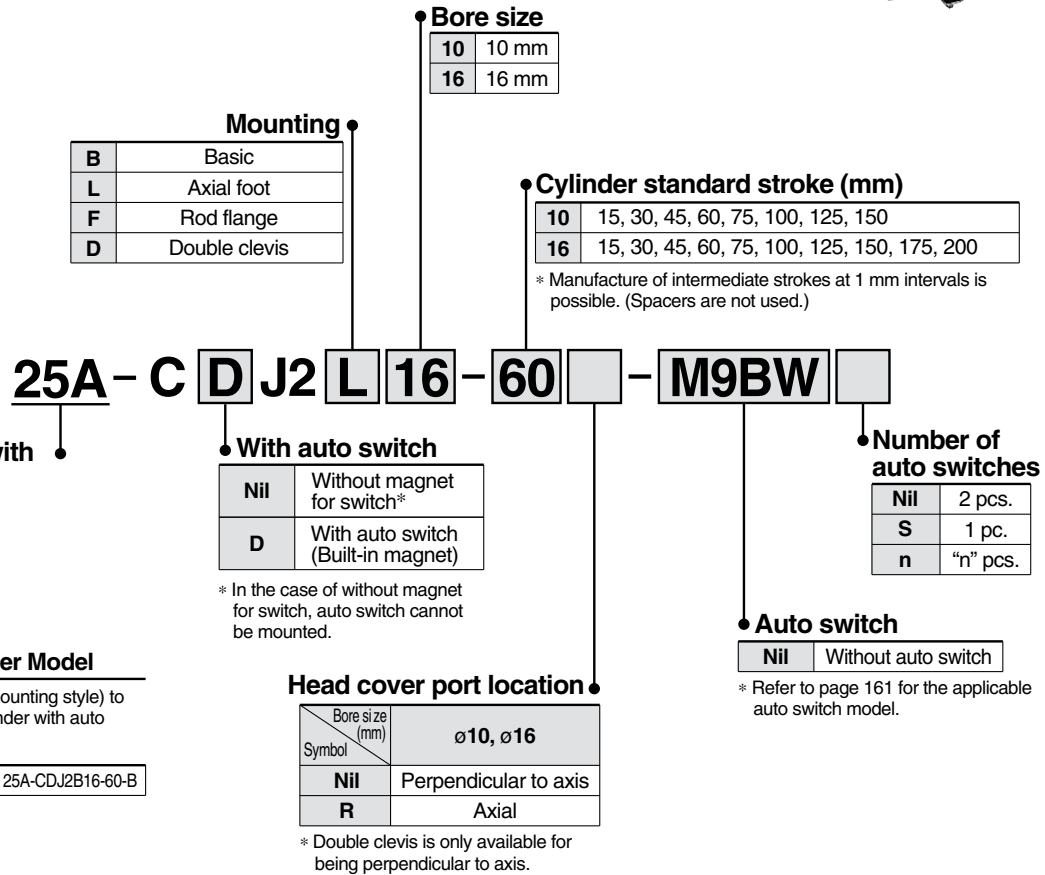
\* Specifications and dimensions for the 25A-series are the same as standard products.



# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CJ2 ø10, ø16

### How to Order



### Mounting Bracket Part No. for Series 25A-

Mounting bracket	Bore size (mm)	
	10	16
Foot bracket	90-CJ-L010B	90-CJ-L016B
Flange bracket	90-CJ-F010B	90-CJ-F016B

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CM2

∅20, ∅25, ∅32, ∅40



### How to Order

**25A - C D M2 L 40 - 150 - M9BW**

Series compatible with secondary batteries

#### With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

#### Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

#### Mounting

<b>B</b>	Basic	<b>T</b>	Head trunnion
<b>L</b>	Axial foot	<b>E</b>	Integral clevis
<b>F</b>	Rod flange	<b>BZ</b>	Boss-cut/Basic
<b>G</b>	Head flange	<b>FZ</b>	Boss-cut/ Rod flange
<b>C</b>	Single clevis	<b>UZ</b>	Boss-cut/ Rod trunnion
<b>D</b>	Double clevis		
<b>U</b>	Rod trunnion		

#### Bore size

<b>20</b>	20 mm
<b>25</b>	25 mm
<b>32</b>	32 mm
<b>40</b>	40 mm

#### Cylinder Stroke (mm)

Bore size (mm)	Standard stroke <sup>(1)</sup> (mm)	Maximum stroke (mm)
<b>20</b>	25, 50, 75, 100, 125, 150 200, 250, 300	1000
<b>25</b>		1500
<b>32</b>		2000
<b>40</b>		2000

Note 1) Other intermediate strokes can be manufactured upon receipt of order. Manufacture of intermediate strokes at 1 mm intervals is possible. (Spacers are not used.)

Note 2) When exceeding 300 strokes, the allowable maximum stroke length is determined by the stroke selection table.

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDM2F32-100

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Mounting bracket	Min. order	Bore size (mm)				Description (for min. order)
		20	25	32	40	
Axial foot *	2	CM-L020B-XB12	CM-L032B-XB12	CM-L040B-XB12		2 feet, 1 mounting nut
Flange	1	CM-F020B-XB12	CM-F032B-XB12	CM-F040B-XB12		1 flange
Single clevis **	1	25-CM-C020B	25-CM-C032B	25-CM-C040B		1 single clevis, 3 liners
Double clevis *** (with pin)	1	25-CM-D020B	25-CM-D032B	25-CM-D040B		1 double clevis, 3 liners, 1 clevis pin, 2 retaining rings
Trunnion (with nut)	1	25-CM-T020B	25-CM-T032B	25-CM-T040B		1 trunnion, 1 trunnion nut

\* Order 2 foot brackets for each cylinder unit.

\*\* 3 liners are attached with a clevis bracket for adjusting the mounting angle.

\*\*\* A clevis pin and retaining rings (split pins for ∅40) are attached.

# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CG1

∅20, ∅25, ∅32, ∅40, ∅50, ∅63, ∅80, ∅100

### How to Order



**25A - C D G1 L N 25 - 100 - M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Mounting

B	Basic
L	Axial foot
F	Rod flange
G	Head flange
U*	Rod trunnion
T*	Head trunnion
D	Clevis

\* Not available for ∅80 or ∅100.  
Note) Mounting bracket is shipped together with the product, but not assembled.

Type

N	Rubber bumper
A	Air cushion

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Cylinder stroke (mm)

Bore size (mm)	Standard stroke <sup>(1)</sup> (mm)	Long stroke <sup>(2)</sup> (mm)	Maximum stroke (mm)
20	25, 50, 75, 100, 125, 150, 200	201 to 350	1500
25	25, 50, 75, 100, 125, 150, 200, 250, 300	301 to 400	
32		301 to 450	
40		301 to 800	
50, 63		301 to 1200	
80		301 to 1400	
100		301 to 1500	

Note 1) Manufacture of intermediate strokes at 1 mm intervals is possible. (Spacers are not used.)

Note 2) Long stroke is compatible with the axial foot and rod side flange types. When other mounting brackets are used or the long stroke exceeds the limit, the allowable maximum stroke length is determined using the stroke selection table. (**WEB catalog** or Best Pneumatics No. 2)

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDG1FN32-100

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Mounting bracket	Min. order	Bore size (mm)								Description
		20	25	32	40	50	63	80	100	
Foot	2 <sup>Note)</sup>	90-CG-L020	90-CG-L025	90-CG-L032	90-CG-L040	90-CG-L050	25-CG-L063	25-CG-L080	25-CG-L100	Foot x 2, Mounting bolt x 8
Flange	1	90-CG-F020	90-CG-F025	90-CG-F032	90-CG-F040	90-CG-F050	25-CG-F063	25-CG-F080	25-CG-F100	Flange x 1, Mounting bolt x 4
Trunnion pin	1	25-CG-T020	25-CG-T025	25-CG-T032	25-CG-T040	25-CG-T050	25-CG-T063	—	—	Trunnion pin x 2, Trunnion bolt x 2, Flat washer x 2
Clevis	1	25-CG-D020	25-CG-D025	25-CG-D032	25-CG-D040	25-CG-D050	25-CG-D063	25-CG-D080	25-CG-D100	Clevis x 1, Mounting bolt x 4, Clevis pin x 1, Retaining ring x 2
Pivot bracket	1	25-CG-020-24A	25-CG-025-24A	25-CG-032-24A	25-CG-040-24A	25-CG-050-24A	25-CG-063-24A	25-CG-080-24A	25-CG-100-24A	Pivot bracket x 1

Note) Order two foot brackets per cylinder.



# Air Cylinder: Single Rod

## Series 25A-MB

∅32, ∅40, ∅50, ∅63, ∅80, ∅100



### How to Order

**25A-M D B L 32-50 Z-M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Mounting

B	Basic
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
T	Center trunnion

Cylinder stroke (mm)

Bore (mm)	Standard stroke (mm)
32	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
63	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
80	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800
100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800

\* Intermediate strokes are available. (No spacer is used.)

Bore size

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-MDBB40-100Z

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	32	40	50	63	80	100
Foot <sup>Note 1)</sup>	25-MB-L03	25-MB-L04	25-MB-L05	25-MB-L06	25-MB-L08	25-MB-L10
Flange	MB-F03-XC7	MB-F04-XC7	MB-F05-XC7	MB-F06-XC7	MB-F08-XC7	MB-F10-XC7
Single clevis	25-MB-C03	25-MB-C04	25-MB-C05	25-MB-C06	25-MB-C08	25-MB-C10
Double clevis	25-MB-D03	25-MB-D04	25-MB-D05	25-MB-D06	25-MB-D08	25-MB-D10

Note 1) Two foot brackets required for one cylinder.

Note 2) Accessories for each mounting bracket are as follows: Foot, flange, single clevis/body mounting bolt, double clevis/body mounting bolt, clevis pin, flat washers and split pins.

# Air Cylinder: Single Rod

## Series 25A-MB

∅32, ∅40, ∅50, ∅63, ∅80, ∅100

### How to Order



**25A - M D B L 32 - 50 - M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Mounting

B	Basic
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
T	Center trunnion

Bore size

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Cylinder stroke (mm)

Bore (mm)	Standard stroke (mm)
32	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
63	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600
80	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800
100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800

\* Intermediate strokes are available. (No spacer is used.)

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-MDBB40-100

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	32	40	50	63	80	100
Foot (Note 1)	25-MB-L03	25-MB-L04	25-MB-L05	25-MB-L06	25-MB-L08	25-MB-L10
Flange	25-MB-F03	25-MB-F04	25-MB-F05	25-MB-F06	25-MB-F08	25-MB-F10
Single clevis	25-MB-C03	25-MB-C04	25-MB-C05	25-MB-C06	25-MB-C08	25-MB-C10
Double clevis	25-MB-D03	25-MB-D04	25-MB-D05	25-MB-D06	25-MB-D08	25-MB-D10

Note 1) Two foot brackets required for one cylinder.

Note 2) Accessories for each mounting bracket are as follows: Foot, flange, single clevis/body mounting bolt, double clevis/body mounting bolt, clevis pin, flat washers and split pins.

# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CA2 ø40, ø50, ø63, ø80, ø100



### How to Order

**25A - C D A2 L 50 - 100 Z - M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Mounting

B	Basic
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
T	Center trunnion

Bore size

40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Cylinder stroke (mm)

40	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
50, 63	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 500, 600
80, 100	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 600, 700

\* Intermediate strokes not listed above are produced upon receipt of order.

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch  
(Example) 25A-CDA2L40-100Z

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	40	50	63	80	100
Axial foot*	90-CA2-L04	90-CA2-L05	90-CA2-L06	90-CA2-L08	90-CA2-L10
Flange	25A-CA2-F04	25A-CA2-F05	25A-CA2-F06	25A-CA2-F08	25A-CA2-F10
Single clevis	25A-CA2-C04	25A-CA2-C05	25A-CA2-C06	25A-CA2-C08	25A-CA2-C10
Double clevis**	25A-CA2-D04	25A-CA2-D05	25A-CA2-D06	25A-CA2-D08	25A-CA2-D10

\* When axial foot brackets are used, two pieces should be ordered for each cylinder.

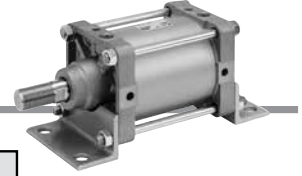
\*\* A clevis pin, flat washers and split pins are shipped together with double clevis.



# Air Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CS2

ø125, ø140, ø160



### How to Order

**25A - C D S2 L 125 - 300 - M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Number of auto switches

Nil	2 pcs.
3	3 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Mounting

B	Basic
L	Foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
T	Center trunnion

Cylinder stroke (mm)

Mounting bracket	Maximum stroke	
	Basic, Head flange, Single clevis, Double clevis, Center trunnion	Foot, Rod flange
Bore size 125	1000 or less	1600 or less
Bore size 140	1200 or less	
Bore size 160	1200 or less	

Bore size

125	125 mm
140	140 mm
160	160 mm

Port thread type

Nil	Rc
TN	NPT
TF	G

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without auto switch is required, there is no need to enter the symbol for auto switch.

(Example) 25A-CS2B125-100

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	125	140	160
Axial foot *	CS2-L12	CS2-L14	CS2-L16
Flange	CS2-F12	CS2-F14	CS2-F16
Single clevis	CS2-C12	CS2-C14	CS2-C16
Double clevis **	25A-CS2-D12	25A-CS2-D14	25A-CS2-D16

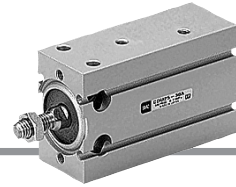
\* Order two foot brackets per cylinder.

\*\* A clevis pin and split pins are shipped together with double clevis.

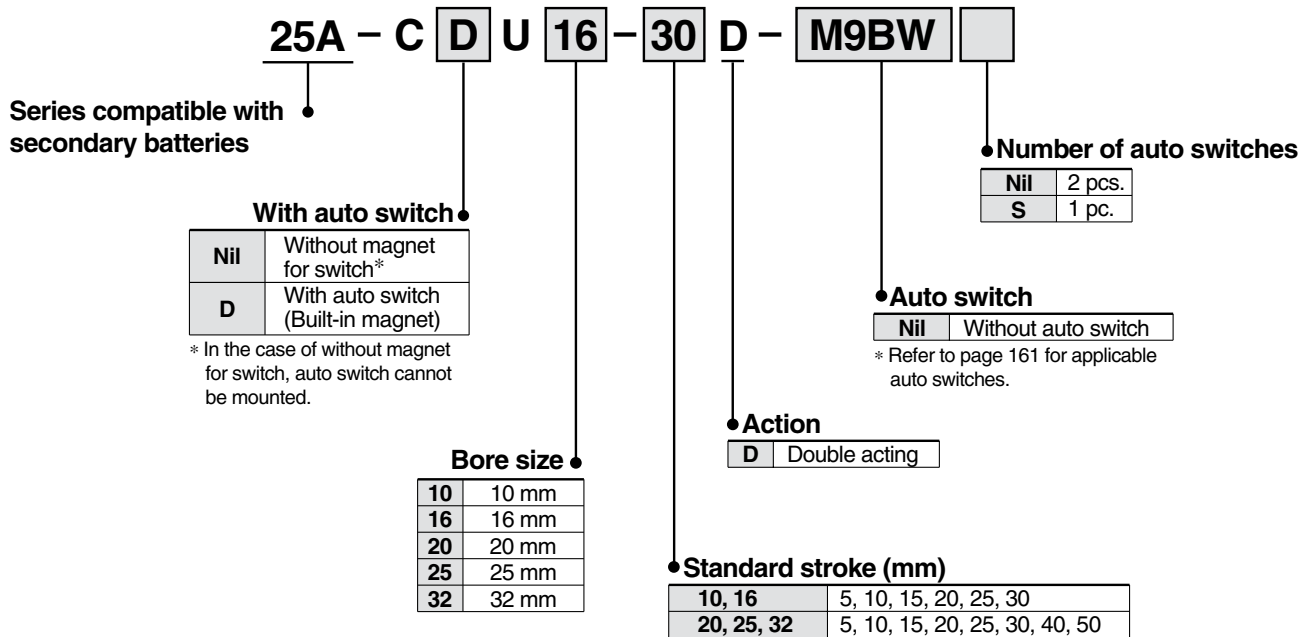
# Free Mount Cylinder Double Acting, Single Rod

## Series 25A-CU

∅10, ∅16, ∅20, ∅25, ∅32



### How to Order



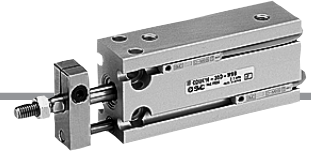
### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.  
(Example) 25A-CDU20-25D

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Free Mount Cylinder: Non-rotating Rod Type Double Acting, Single Rod

## Series 25A-CUK Ø10, Ø16, Ø20, Ø25, Ø32



### How to Order

Series compatible with secondary batteries

25A - C **D** UK 16 - 30 D - M9BW 

--

**With auto switch**

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

**Number of auto switches**

Nil	2 pcs.
S	1 pc.

**Auto switch**

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for applicable auto switches.

**Action**

D	Double acting
---	---------------

**Non-rotating rod type**

**Bore size**

10	10 mm
16	16 mm
20	20 mm
25	25 mm
32	32 mm

**Standard stroke (mm)**

10, 16	5, 10, 15, 20, 25, 30
20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.  
(Example) 25A-CDUK20-25D

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Compact Cylinder: Standard Type Double Acting, Single Rod

## Series 25A-CQS

∅12, ∅16, ∅20, ∅25



### How to Order

**25A - C D QS B 20 - 30 D - M9BW**

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Body option

<Standard stroke>

Nil	Standard
C	With rubber bumper
M	Rod end male thread

\* Combination of body options is available.

<Long stroke>

C	With rubber bumper Rod end female thread (Standard)
CM	With rubber bumper Rod end male thread

\* Rubber bumper is standard equipment for long stroke type.

Mounting

B	Through-hole/Both ends tapped common (Standard)
L	Foot
F	Rod flange
G	Head flange
D	Double clevis

\* In the case of long strokes, use either ends tapped mounting or bracket mounting.

\* Mounting brackets are shipped together, (but not assembled).

\* Cylinder mounting bolts are not included.

Action

D	Double acting
---	---------------

Cylinder stroke (mm)

Bore size	Standard stroke	Long stroke
12, 16	5, 10, 15, 20, 25, 30	35, 40, 45, 50, 75, 100, 125, 150, 175, 200
20	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	75, 100, 125, 150, 175, 200
25		75, 100, 125, 150, 175, 200, 250, 300

Bore size

12	12 mm
16	16 mm
20	20 mm
25	25 mm

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDQSL25-30D

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	Foot Note 1)	Flange	Double clevis
12	25-CQS-L012	25-CQS-F012	25-CQS-D012
16	25-CQS-L016	25-CQS-F016	25-CQS-D016
20	25-CQS-L020	25-CQS-F020	25-CQS-D020
25	25-CQS-L025	25-CQS-F025	25-CQS-D025

Note 1) When ordering foot bracket, order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows.

Foot or Flange style: Body mounting bolt

Double clevis style: Clevis pin, Type C retaining ring for axis, Body mounting bolt.

# Compact Cylinder: Anti-lateral Load Type

## Series 25A-CQS□S

∅12, ∅16, ∅20, ∅25



### How to Order

25A-C □ D QS B S 20 - 30 D C - M9BW □

Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Mounting

B	Through-hole/Both ends tapped common (Standard)
L	Foot
F	Rod flange
G	Head flange
D	Double clevis

\* Mounting brackets are shipped together, (but not assembled).  
\* Cylinder mounting bolts are not included.

Cushion

S	Anti-lateral load type
---	------------------------

Bore size

12	12 mm
16	16 mm
20	20 mm
25	25 mm

Cylinder stroke (mm)

Bore size	Standard stroke
12, 16	5, 10, 15, 20, 25, 30
20, 25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Body option

C	With rubber bumper Rod end female thread (Standard)
CM	With rubber bumper Rod end male thread

Action

D	Double acting
---	---------------

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDQSLS12-25DC

\* With cushion only.

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Mounting Bracket Part No. for Series 25A-

Bore size (mm)	Foot <sup>(1)</sup>	Flange	Double clevis
12	25-CQS-L012	25-CQS-F012	25-CQS-D012
16	25-CQS-L016	25-CQS-F016	25-CQS-D016
20	25-CQS-L020	25-CQS-F020	25-CQS-D020
25	25-CQS-L025	25-CQS-F025	25-CQS-D025

Note 1) When ordering foot bracket, order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows.

Foot or Flange style: Body mounting bolt

Double clevis style: Clevis pin, Type C retaining ring for axis, Body mounting bolt

# Compact Cylinder: Standard Double Acting, Single Rod

## Series 25A-CQ2

ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100

### How to Order



25A - C D Q2 B 20 - 30 D Z - M9BW

• Series compatible with secondary batteries

With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

Mounting

B	Through-hole (Standard)
A	Both ends tapped
L	Foot
F	Rod flange
G	Head flange
D	Double clevis

\* Mounting brackets are shipped together, (but not assembled).

\* Cylinder mounting bolts are not included.

Bore size

12	12 mm	40	40 mm
16	16 mm	50	50 mm
20	20 mm	63	63 mm
25	25 mm	80	80 mm
32	32 mm	100	100 mm

Port thread type

Nil	M thread	ø12 to ø25
	Rc	
TN	NPT	ø32 to ø100
TF	G	

Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch mounting groove

Z	ø12 to ø25	2 surfaces
	ø32 to ø100	4 surfaces

\* "Z" is not available for ø12 to ø25 without auto switches.

Body option

Nil	Standard (Rod end female thread)
C	With rubber bumper
M	Rod end male thread

\* Combination of body options is available.

Action

D	Double acting
---	---------------

Cylinder stroke (mm)

12, 16	5, 10, 15, 20, 25, 30
20, 25	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50 to 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDQ2L32-25DZ

### Mounting Bracket Part No. for Series 25A-/Without auto switch

Bore size (mm)	Foot <sup>(1)</sup>	Flange	Double clevis
12	25-CQ-L012	25-CQ-F012	25-CQ-D012
16	25-CQ-L016	25-CQ-F016	25-CQ-D016
20	25-CQ-L020	25-CQ-F020	25-CQ-D020
25	25-CQ-L025	25-CQ-F025	25-CQ-D025
32	25-CQ-L032	25-CQ-F032	25-CQ-D032
40	25-CQ-L040	25-CQ-F040	25-CQ-D040
50	25-CQ-L050	25-CQ-F050	25-CQ-D050
63	25-CQ-L063	25-CQ-F063	25-CQ-D063
80	25-CQ-L080	25-CQ-F080	25-CQ-D080
100	25-CQ-L100	25-CQ-F100	25-CQ-D100

### Mounting Bracket Part No. for Series 25A-/With auto switch

Bore size (mm)	Foot <sup>(1)</sup>	Flange	Double clevis
12	25-CQ-LZ12	25-CQ-F012	25-CQ-D012
16	25-CQ-LZ16	25-CQ-F016	25-CQ-D016
20	25-CQ-LZ20	25-CQ-F020	25-CQ-D020
25	25-CQ-LZ25	25-CQ-F025	25-CQ-D025
32	25-CQ-L032	25-CQ-F032	25-CQ-D032
40	25-CQ-L040	25-CQ-F040	25-CQ-D040
50	25-CQ-L050	25-CQ-F050	25-CQ-D050
63	25-CQ-L063	25-CQ-F063	25-CQ-D063
80	25-CQ-L080	25-CQ-F080	25-CQ-D080
100	25-CQ-L100	25-CQ-F100	25-CQ-D100

Note 1) When ordering a foot bracket, the required quantity will be different depending on the bore size.

ø12 to ø25:

• Without switch: Order 2 pieces per cylinder.

• With switch: Order 1 piece per cylinder. (Part number for a set of 2 foot brackets)

ø32 to ø100:

• Order 2 pieces per cylinder.

Note 2) Parts belonging to each bracket are as follows.

Foot or Flange: Body mounting bolts, Double clevis: Clevis pin, Type C retaining rings for axis, Body mounting bolts

### Simple Joint (Standard)/ Part No.

Bore size (mm)	Joint	Type A mounting bracket	Type B mounting bracket
32, 40	YU-03	YA-03	YB-03
50, 63	YU-05	YA-05	YB-05
80	YU-08	YA-08	YB-08
100	YU-10	YA-10	YB-10

<Ordering>

• Joints are not included with type A or B mounting brackets. Order them separately.

(Example)

Bore size ø40 Part no.

• Type A mounting bracket ..... YA-03

• Joint ..... YU-03



# Compact Cylinder: Large Bore Size Double Acting, Single Rod

## Series 25A-CQ2

ø125, ø140, ø160, ø180, ø200



### How to Order

25A - C **D** Q2B 125 **□** - 30 DC **□** Z - M9BW **□**

• Series compatible with secondary batteries

• With auto switch

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.

• Mounting

B	Through-hole/ Both ends tapped common (Standard)
---	---

\* Cylinder mounting bolts are not included.

• Bore size

125	125 mm
140	140 mm
160	160 mm
180	180 mm
200	200 mm

• Port thread type

Nil	Rc
TN	NPT
TF	G

• Cylinder stroke (mm)

Bore size	Standard stroke
125, 140, 160 180, 200	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300

• Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

• Auto switch

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.

• Auto switch mounting groove

Z	ø125 to ø200	4 surfaces
---	--------------	------------

• Body option

Nil	Standard (Rod end female thread)
M	Rod end male thread

• Cushion

C	Rubber bumper
---	---------------

• Action

D	Double acting
---	---------------

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDQ2B140-30DCZ

\* Specifications and dimensions for the 25A-series are the same as standard products.

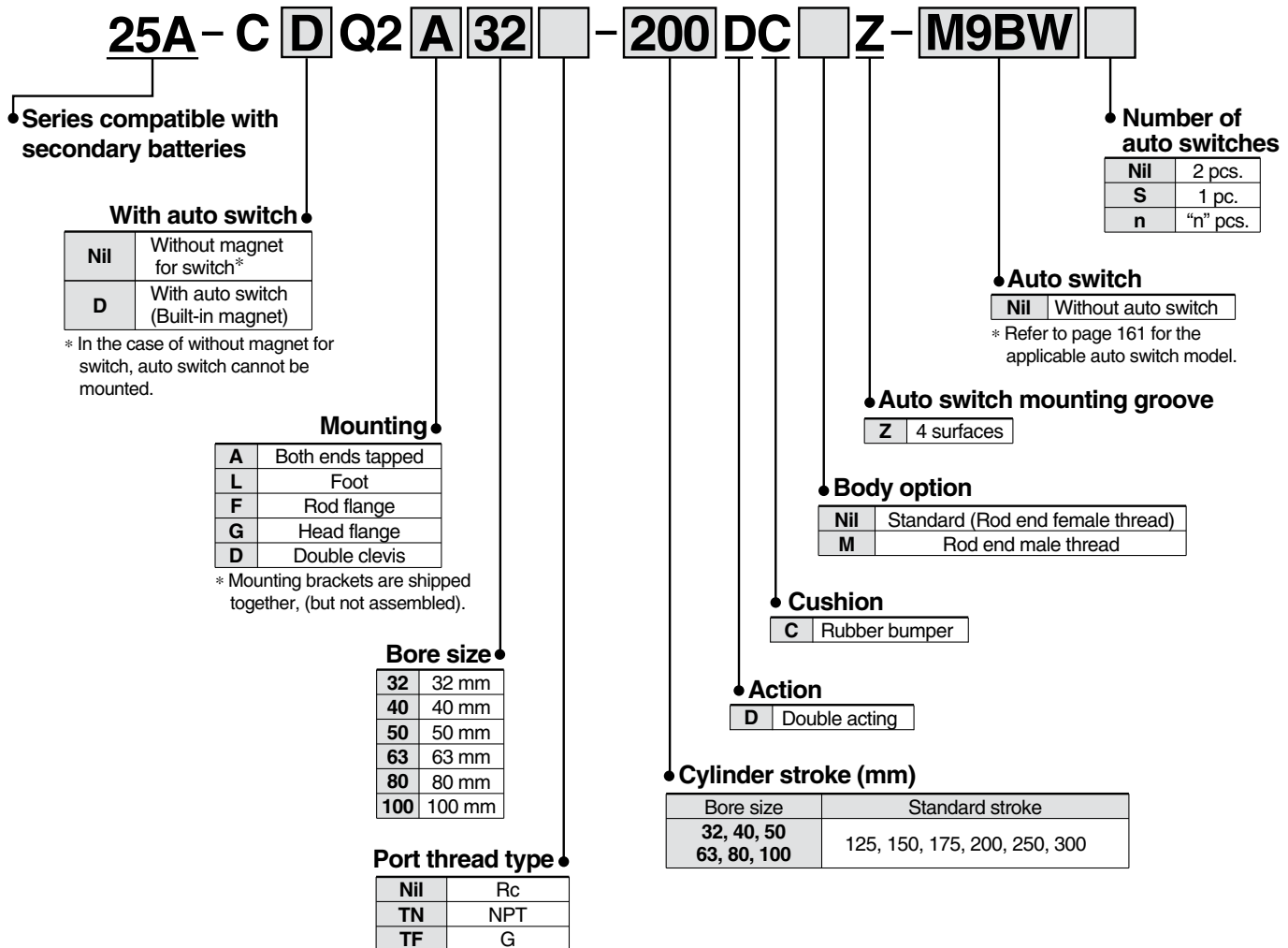
# Compact Cylinder: Long Stroke Double Acting, Single Rod

## Series 25A-CQ2

ø32, ø40, ø50, ø63, ø80, ø100



### How to Order



### Simple Joint (Standard)/Part No.

Bore size (mm)	Joint	Type A mounting bracket	Type B mounting bracket
32, 40	YU-03	YA-03	YB-03
50, 63	YU-05	YA-05	YB-05
80	YU-08	YA-08	YB-08
100	YU-10	YA-10	YB-10

<Ordering>

• Joints are not included with type A or B mounting brackets. Order them separately.

(Example)

Bore size ø40                      Part no.

• Type A mounting bracket.....YA-03

• Joint.....YU-03

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

(Example) 25A-CDQ2L40-200DCZ

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Compact Cylinder: Anti-lateral Load

## Series 25A-CQ2

∅32, ∅40, ∅50, ∅63, ∅80, ∅100



### How to Order

**25A - C D Q2 B S 32 - 30 D C Z - M9BW**

- Series compatible with secondary batteries**
- With auto switch**

Nil	Without magnet for switch*
D	With auto switch (Built-in magnet)

\* In the case of without magnet for switch, auto switch cannot be mounted.
- Mounting**

B	Through-hole (Standard)
A	Both ends tapped
L	Foot
F	Rod flange
G	Head flange
D	Double clevis

\* Mounting brackets are shipped together, (but not assembled).  
\* Cylinder mounting bolts are not included.
- Type**

S	Anti-lateral load
---	-------------------
- Bore size**

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm
- Port thread type**

Nil	Rc
TN	NPT
TF	G
- Action**

D	Double acting
---	---------------
- Cylinder stroke (mm)**

Bore size	Standard stroke
32, 40	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
50, 63, 80, 100	10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100
- Cushion**

C	Rubber bumper
---	---------------
- Body option**

Nil	Standard (Rod end female thread)
M	Rod end male thread
- Auto switch mounting groove**

Z	4 surfaces
---	------------
- Auto switch**

Nil	Without auto switch
-----	---------------------

\* Refer to page 161 for the applicable auto switch model.
- Number of auto switches**

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.

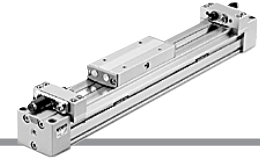
(Example) 25A-CDQ2LS40-30DCZ

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Mechanically Jointed Rodless Cylinder Basic Type

## Series 25A-MY1B

∅20, ∅25, ∅32, ∅40, ∅50, ∅63



### How to Order

25A - MY1B 20 - 300 - M9BW

Series compatible with secondary batteries

Basic type

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm
63	63 mm

Piping

Nil	Standard type
G	Centralized piping type

Cylinder stroke (mm)

20, 25, 32, 40, 50, 63	100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000
------------------------	---

\* Strokes are manufacturable in 1 mm increments, up to the maximum stroke. However, contact SMC when exceeding a 2000 mm stroke.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

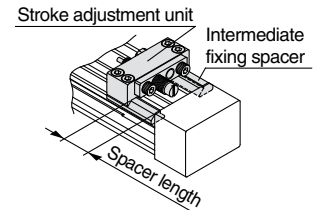
Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Applicable auto switches vary depending on the bore size. Select an applicable one referring to page 161.

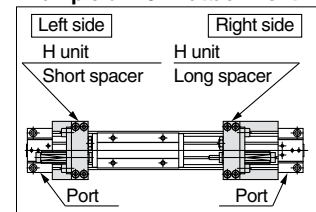
### Stroke adjustment unit symbol

		Right side stroke adjustment unit										
		Without unit	A: With adjustment bolt				L: With low load shock absorber + Adjustment bolt			H: With high load shock absorber + Adjustment bolt		
			With short spacer	With long spacer	With short spacer	With long spacer	With short spacer	With long spacer	With short spacer	With long spacer		
Left side stroke adjustment unit	Without unit	Nil	SA	SA6	SA7	SL	SL6	SL7	SH	SH6	SH7	
	A: With adjustment bolt	AS	A	AA6	AA7	AL	AL6	AL7	AH	AH6	AH7	
	With short spacer	A6S	A6A	A6	A6A7	A6L	A6L6	A6L7	A6H	A6H6	A6H7	
	With long spacer	A7S	A7A	A7A6	A7	A7L	A7L6	A7L7	A7H	A7H6	A7H7	
	L: With low load shock absorber + Adjustment bolt	LS	LA	LA6	LA7	L	LL6	LL7	LH	LH6	LH7	
	With short spacer	L6S	L6A	L6A6	L6A7	L6L	L6	L6L7	L6H	L6H6	L6H7	
	With long spacer	L7S	L7A	L7A6	L7A7	L7L	L7L6	L7	L7H	L7H6	L7H7	
	H: With high load shock absorber + Adjustment bolt	HS	HA	HA6	HA7	HL	HL6	HL7	H	HH6	HH7	
	With short spacer	H6S	H6A	H6A6	H6A7	H6L	H6L6	H6L7	H6H	H6	H6H7	
	With long spacer	H7S	H7A	H7A6	H7A7	H7L	H7L6	H7L7	H7H	H7H6	H7	

### Stroke adjustment unit mounting diagram



### Example of H6H7 attachment



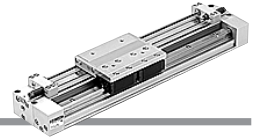
\* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Mechanically Jointed Rodless Cylinder Linear Guide Type

## Series 25A-MY1H

∅16, ∅20, ∅25, ∅32, ∅40



### How to Order

**25A - MY1H** **25** **300** **M9BW**

Series compatible with secondary batteries

Linear guide type

Bore size

16	16 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm

Piping

Nil	Standard type
G	Centralized piping type

Cylinder stroke (mm)

16, 20, 25, 32, 40	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600
--------------------	---

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

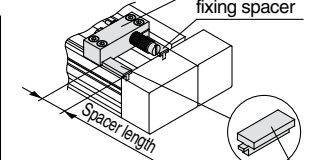
Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

Stroke adjustment unit symbol

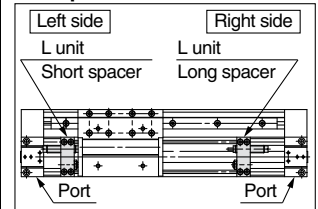
Stroke adjustment unit mounting diagram

Stroke adjustment unit Intermediate fixing spacer



Place the protruding section on the stroke adjusting unit side.

Example of L6L7 attachment



		Right side stroke adjustment unit									
		Without unit	A: With adjustment bolt			L: With low load shock absorber + Adjustment bolt			H: With high load shock absorber + Adjustment bolt		
Left side stroke adjustment unit	Without unit	Nil	SA	SA6	SA7	SL	SL6	SL7	SH	SH6	SH7
	A: With adjustment bolt	AS	A	AA6	AA7	AL	AL6	AL7	AH	AH6	AH7
	With short spacer	A6S	A6A	A6	A6A7	A6L	A6L6	A6L7	A6H	A6H6	A6H7
	With long spacer	A7S	A7A	A7A6	A7	A7L	A7L6	A7L7	A7H	A7H6	A7H7
	L: With low load shock absorber + Adjustment bolt	LS	LA	LA6	LA7	L	LL6	LL7	LH	LH6	LH7
	With short spacer	L6S	L6A	L6A6	L6A7	L6L	L6	L6L7	L6H	L6H6	L6H7
	With long spacer	L7S	L7A	L7A6	L7A7	L7L	L7L6	L7	L7H	L7H6	L7H7
	H: With high load shock absorber + Adjustment bolt	HS	HA	HA6	HA7	HL	HL6	HL7	H	HH6	HH7
	With short spacer	H6S	H6A	H6A6	H6A7	H6L	H6L6	H6L7	H6H	H6	H6H7
	With long spacer	H7S	H7A	H7A6	H7A7	H7L	H7L6	H7L7	H7H	H7H6	H7

\* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.  
\* H: With high load shock absorber + Adjustment bolt is not available for 25A-MY1H16.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Mechanically Jointed Rodless Cylinder Linear Guide Type

## Series 25A-MY2H ø16, ø25



### How to Order

**25A - MY2 H 16 G - 300 - M9BW**

Series compatible with secondary batteries

Linear guide type

Bore size

16	16 mm
25	25 mm

Piping

G	Centralized piping type (Standard)
---	------------------------------------

Cylinder stroke (mm)

16, 25	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600
--------	---

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

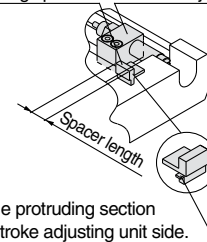
### Stroke adjustment unit symbol

		Right side stroke adjustment unit						
		Without unit	L: With low load shock absorber		H: With high load shock absorber			
			With short spacer	With long spacer		With short spacer	With long spacer	
Left side stroke adjustment unit	Without unit	Nil	SL	SL6	SL7	SH	SH6	SH7
	L: With low load shock absorber	LS	L	LL6	LL7	LH	LH6	LH7
	With short spacer	L6S	L6L	L6	L6L7	L6H	L6H6	L6H7
	With long spacer	L7S	L7L	L7L6	L7	L7H	L7H6	L7H7
	H: With high load shock absorber	HS	HL	HL6	HL7	H	HH6	HH7
	With short spacer	H6S	H6L	H6L6	H6L7	H6H	H6	H6H7
With long spacer	H7S	H7L	H7L6	H7L7	H7H	H7H6	H7	

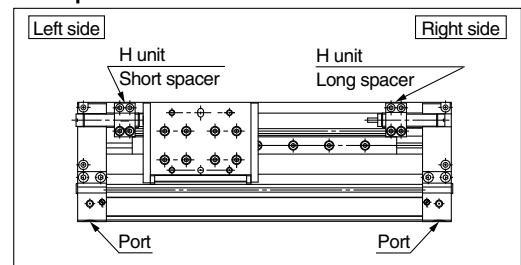
\* Spacers are used to fix the stroke adjustment unit at an intermediate stroke position.

### Stroke adjustment unit mounting diagram

Intermediate fixing spacer Stroke adjustment unit



### Example of H6H7 attachment



\* Specifications and dimensions for the 25A-series are the same as standard products.



# Magnetically Coupled Rodless Cylinder/ Basic Type

## Series **25A-CY3B**

∅15, ∅20, ∅25, ∅32, ∅40

### How to Order



**25A-CY3B** **25** - **300**

Series compatible with secondary batteries

Basic type

Standard stroke

Bore size

15	15 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm

Bore size	Standard stroke	Maximum available stroke
15	50, 100, 150, 200, 250, 300, 350	1000
	400, 450, 500	
20	100, 150, 200, 250, 300, 350	1500
	400, 450, 500, 600, 700, 800	
25	100, 150, 200, 250, 300, 350, 400	2000
	450, 500, 600, 700, 800, 900, 1000	

Note 1) Please contact SMC if the maximum stroke is exceeded.

Note 2) The longer the stroke, the larger the amount of deflection in a cylinder tube. Pay attention to the mounting bracket and clearance value.

Note 3) Intermediate stroke is available by the 1 mm interval.

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

Electric Actuators

Auto Switches

# Magnetically Coupled Rodless Cylinder/ Direct Mount Type

## Series 25A-CY3R

∅15, ∅20, ∅25, ∅32, ∅40



### How to Order

25A - CY3R [ ] 25 - 300 [ ] - M9BW [ ] [ ]

Series compatible with secondary batteries

Direct mount type

Piping type

Nil	Standard type
G	Centralized piping type

Bore size

15	15 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm

Cylinder stroke (mm)

Bore size (mm)	Standard stroke (mm)	Max. stroke without switch (mm)	Max. stroke with switch (mm)
15	50, 100, 150, 200, 250, 300, 350, 400, 450, 500	1000	750
20	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800	1500	1000
25			1200
32	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000	2000	1500
40			

Note 1) The longer the stroke, the larger the amount of deflection in a cylinder tube. Pay attention to the mounting bracket and clearance value.

Note 2) Intermediate stroke is available by the 1 mm interval.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch type

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

Note) In case of ∅20 with switch rail but without auto switch, the cylinder construction is for reed auto switch. Mounting a solid state auto switch causes malfunctions.

Switch rail

Nil	With switch rail
N	Without switch rail

Note 1) A type with switch rail has built-in auto switch magnets.

Note 2) ∅15 has built-in auto switch magnets even without switch rail.

Note 3) Centralized piping type "G" is not available without switch rail "N".

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Air Slide Table

## Series 25A-MXS

ø6, ø8, ø12, ø16, ø20, ø25



### How to Order

Air slide table

25A - MXS 16 [ ] [ ] - 50 AS - M9BW [ ]

Series compatible with secondary batteries

#### Port thread type

Nil	M thread	ø6 to ø16
	Rc	
TN	NPT	ø20, ø25
TF	G	

#### Symmetric type

Nil	Standard type
L	Symmetric type

#### Bore size/Stroke (mm)

6	10, 20, 30, 40, 50
8	10, 20, 30, 40, 50, 75
12	10, 20, 30, 40, 50, 75, 100
16	10, 20, 30, 40, 50, 75, 100, 125
20	10, 20, 30, 40, 50, 75, 100, 125, 150
25	10, 20, 30, 40, 50, 75, 100, 125, 150

#### Adjuster option

Nil	Without adjuster
AS	Adjuster on extension end
AT	Adjuster on retraction end
A	Adjuster on both ends
BS	Absorber on extension end
BT	Absorber on retraction end
B	Absorber on both ends
ASBT	Adjuster on extension end + Absorber on retraction end
BSAT	Absorber on extension end + Adjuster on retraction end

\* With shock absorber is not available in the 25A-MXS6 series.

\* When the adjuster option with shock absorber is used, metal-to-metal collisions occur, and may generate dust particles.

#### Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

#### Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for applicable auto switches.

\* Specifications and dimensions for the 25A-series are the same as standard products.

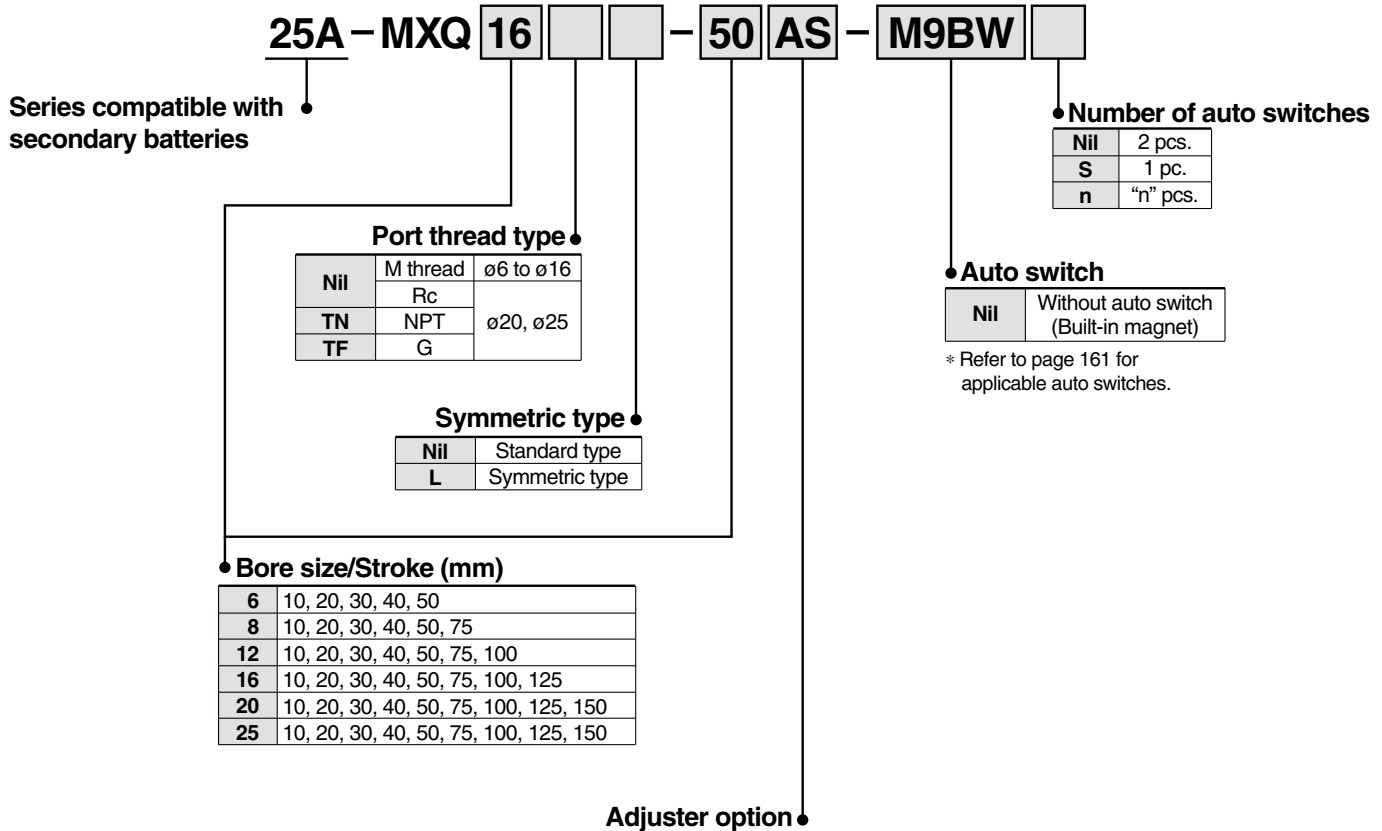
# Air Slide Table

## Series 25A-MXQ

ø6, ø8, ø12, ø16, ø20, ø25



### How to Order



Nil	Without adjuster
AS	Extension end adjuster
AT	Retraction end adjuster
A	Double end adjuster
BS	Extension end absorber
BT	Retraction end absorber
B	Double absorber
CS	Extension end metal stopper
CT	Retraction end metal stopper
C	Double metal stopper
ASBT	Extension end adjuster + Retraction end absorber
ASCT	Extension end adjuster + Retraction end metal stopper
BSAT	Extension end absorber + Retraction end adjuster
BSTC	Extension end absorber + Retraction end metal stopper
CSAT	Extension end metal stopper + Retraction end adjuster
CSBT	Extension end metal stopper + Retraction end absorber

\* With shock absorber is not available in 25A-MXQ6 series.

\* When the adjuster option with shock absorber or metal stopper is used, metal-to-metal collisions occur, and may generate dust particles.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Air Slide Table

## Series 25A-MXW

ø8, ø12, ø16, ø20, ø25



### How to Order

25A – MXW 16 [ ] – 100 B – M9BW [ ]

Series compatible with secondary batteries

#### Port thread type

Nil	M thread	ø8 to ø16
	Rc	
TN	NPT	ø20, ø25
TF	G	

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for applicable auto switches.

#### Bore size/Stroke (mm)

8	25, 50, 75, 100, 125, 150
12	50, 75, 100, 125, 150
16	75, 100, 125, 150, 175, 200
20	100, 125, 150, 175, 200, 225, 250
25	100, 125, 150, 175, 200, 225, 250, 275, 300

Option

Nil	Standard (With urethane bumper)
B	With shock absorbers 2 pcs.

\* When the adjuster option with shock absorber is used, metal-to-metal collisions occur, and may generate dust particles.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Compact Guide Cylinder

## Series 25A-MGP

Ø12, Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø63, Ø80, Ø100



### How to Order

#### Slide bearing type

**25A-MGP M 25-30 Z-M9BW** [ ]

Series compatible with secondary batteries

Compact guide cylinder

Bearing type

**M** Slide bearing

Bore size

<b>12</b>	12 mm	<b>40</b>	40 mm
<b>16</b>	16 mm	<b>50</b>	50 mm
<b>20</b>	20 mm	<b>63</b>	63 mm
<b>25</b>	25 mm	<b>80</b>	80 mm
<b>32</b>	32 mm	<b>100</b>	100 mm

Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

Auto switch

<b>Nil</b>	Without auto switch (Built-in magnet)
------------	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

Cylinder stroke (mm)

<b>12, 16</b>	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250
<b>20, 25</b>	20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400
<b>32 to 100</b>	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

\* Specifications and dimensions for the 25A-series are the same as standard products.

#### Ball bushing bearing type

**25A-MGP L 25-30 Z-M9BW** [ ]

Series compatible with secondary batteries

Compact guide cylinder

Bearing type

**L** Ball bushing bearing

Bore size

<b>12</b>	12 mm	<b>40</b>	40 mm
<b>16</b>	16 mm	<b>50</b>	50 mm
<b>20</b>	20 mm	<b>63</b>	63 mm
<b>25</b>	25 mm	<b>80</b>	80 mm
<b>32</b>	32 mm	<b>100</b>	100 mm

Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

Auto switch

<b>Nil</b>	Without auto switch (Built-in magnet)
------------	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

Cylinder stroke (mm)

<b>12, 16</b>	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250
<b>20, 25</b>	20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400
<b>32 to 100</b>	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

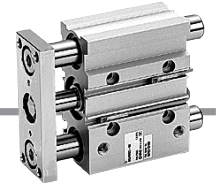
\* Specifications and dimensions for the 25A-series are the same as standard products.



# Compact Guide Cylinder

## Series 25A-MGP

∅12, ∅16, ∅20, ∅25, ∅32, ∅40, ∅50, ∅63, ∅80, ∅100



### How to Order

#### Slide bearing type

**25A-MGP M 25-30-M9BW**

Series compatible with secondary batteries

Compact guide cylinder

Bearing type

**M** Slide bearing

Bore size

<b>12</b>	12 mm	<b>40</b>	40 mm
<b>16</b>	16 mm	<b>50</b>	50 mm
<b>20</b>	20 mm	<b>63</b>	63 mm
<b>25</b>	25 mm	<b>80</b>	80 mm
<b>32</b>	32 mm	<b>100</b>	100 mm

Cylinder stroke (mm)

<b>12, 16</b>	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250
<b>20, 25</b>	20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400
<b>32 to 100</b>	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

Auto switch

<b>Nil</b>	Without auto switch (Built-in magnet)
------------	---------------------------------------

\* Refer to page 161 for the applicable auto switch model.

#### Ball bushing bearing type

**25A-MGP L 25-30-M9BW**

Series compatible with secondary batteries

Compact guide cylinder

Bearing type

**L** Ball bushing bearing

Bore size

<b>12</b>	12 mm	<b>40</b>	40 mm
<b>16</b>	16 mm	<b>50</b>	50 mm
<b>20</b>	20 mm	<b>63</b>	63 mm
<b>25</b>	25 mm	<b>80</b>	80 mm
<b>32</b>	32 mm	<b>100</b>	100 mm

Cylinder stroke (mm)

<b>12, 16</b>	10, 20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250
<b>20, 25</b>	20, 30, 40, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400
<b>32 to 100</b>	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400

Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

Auto switch

<b>Nil</b>	Without auto switch (Built-in magnet)
------------	---------------------------------------

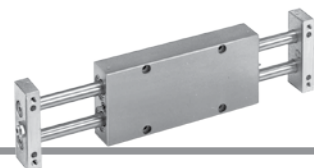
\* Refer to page 161 for the applicable auto switch model.

\* Specifications and dimensions for the 25A-series are the same as standard products.

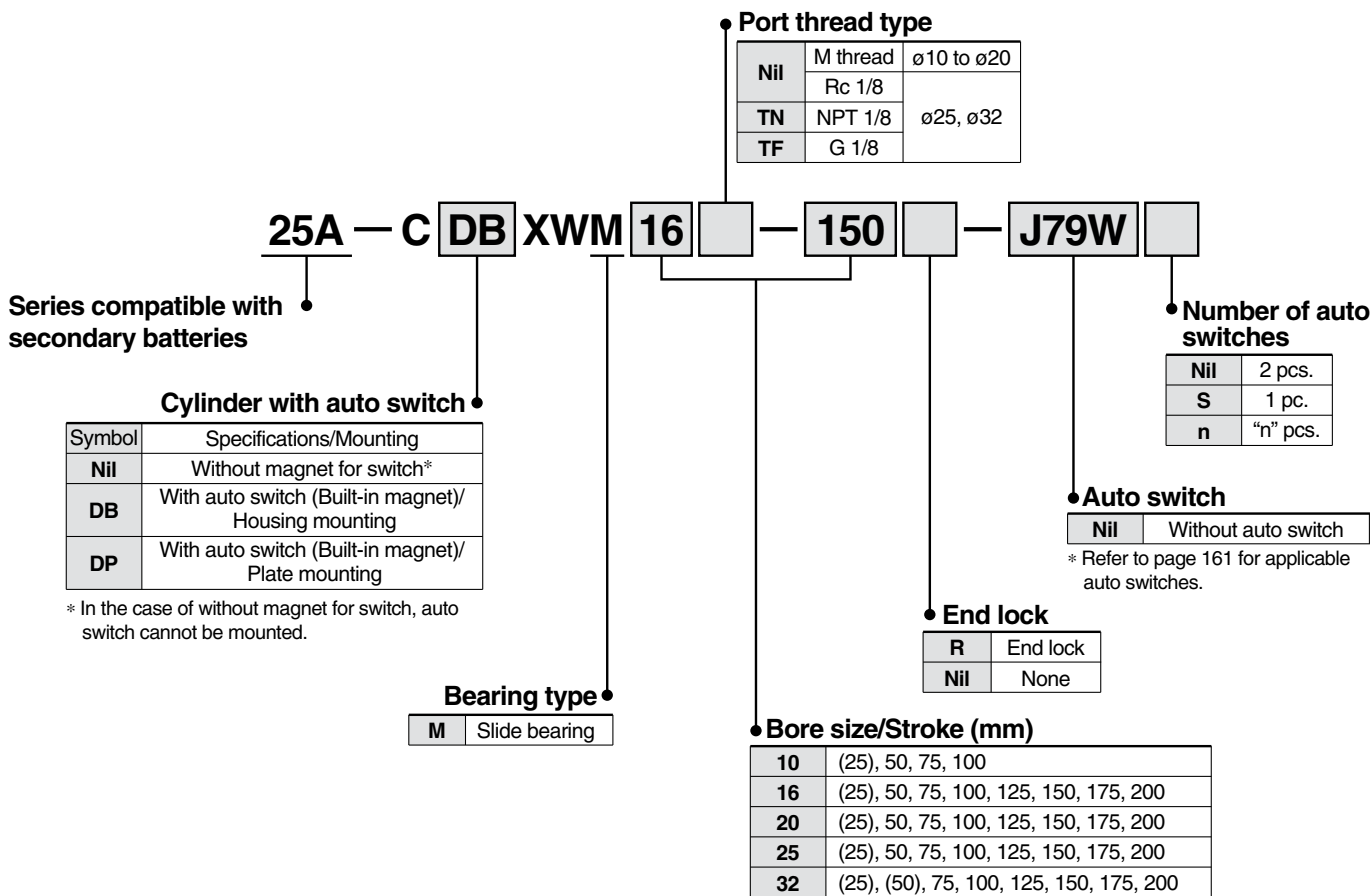
\* Specifications and dimensions for the 25A-series are the same as standard products.

# Slide Unit: Built-in Shock Absorber Slide Bearing Type

## Series 25A-CXWM ø10, ø16, ø20, ø25, ø32



### How to Order



### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.  
(Example) 25A-CDPXWM20-100

Note 1) For the strokes indicated in the parentheses of the ø10, ø16 and ø25, shock absorbers are to be mounted on both sides of the plate. For the strokes indicated in the parentheses of the ø20 and ø32, a shock absorber is to be mounted on single side of the plate.

Note 2) For the strokes other than those indicated above, refer to the Best Pneumatics No. 1.

Note 3) For ø16, ø20 and ø25, strokes up to 300, and for ø32, strokes up to 250 are available as Made-to-Order.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Dual Rod Cylinder Basic Type

## Series 25A-CXS ø6, ø10, ø15, ø20, ø25, ø32



### How to Order

#### Slide bearing type

**25A-CXSM 25-100-Y7BW** □

Series compatible with secondary batteries

Bearing type

M	Slide bearing
---	---------------

Bore size/Stroke (mm)

Bore size	Standard stroke (mm)
6	10, 20, 30, 40, 50
10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75
15, 20, 25, 32	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for applicable auto switches.

\* Specifications and dimensions for the 25A-series are the same as standard products.

#### Ball bushing bearing type

**25A-CXSL 20-100-Y7BW** □

Series compatible with secondary batteries

Bearing type

L	Ball bushing bearing
---	----------------------

Bore size/Stroke (mm)

Bore size	Standard stroke (mm)
6	10, 20, 30, 40, 50
10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75
15, 20, 25, 32	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

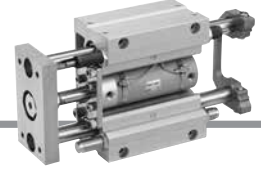
\* Refer to page 161 for applicable auto switches.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Guide Cylinder

## Series 25A-MGG

Ø20, Ø25, Ø32, Ø40, Ø50



### How to Order

**25A - MGG L B 32 - 100 - M9BW** [ ]

Series compatible with secondary batteries

Guide cylinder

Bearing type

L	Ball bushing bearing
---	----------------------

Mounting

B	Basic
F	Front mounting flange

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm
50	50 mm

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 161 for applicable auto switches.

Cylinder stroke (mm)

Bore size (mm)	Standard stroke (mm)	Long stroke (mm)
20	75, 100, 125, 150, 200	250, 300, 350, 400
25	75, 100, 125, 150, 200, 250, 300	350, 400, 450, 500
32		350, 400, 450, 500, 600
40		350, 400, 450, 500, 600, 700, 800
50		350, 400, 450, 500, 600, 700, 800, 900, 1000

\* Intermediate strokes and short strokes other than the above are produced upon receipt of order.

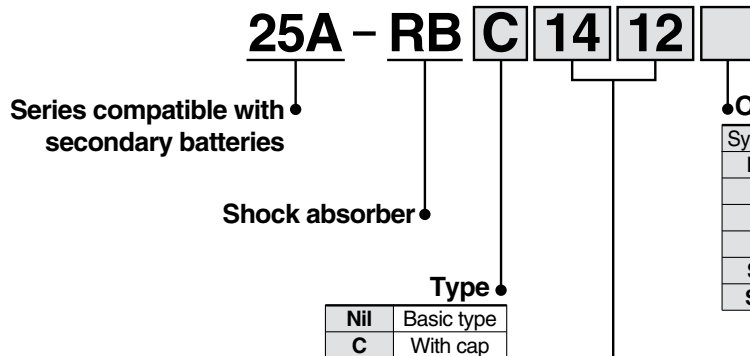
\* Specifications and dimensions for the 25A-series are the same as standard products.

# Shock Absorber

## Series 25A-RB/RBC



### How to Order



### Hexagon Nut, Stopper Nut (Option) Part No. for Series 25A-

		Thread size				
		M8	M10	M14	M20	M27
Hexagon nut		25-RB08J	25-RB10J	25-RB14J	25-RB20J	25-RB27J
Stopper nut	Basic type	25-RB08S	25-RB10S	25-RB14S	25-RB20S	25-RB27S
	With cap	25-RBC08S	25-RBC10S	25-RBC14S	25-RBC20S	25-RBC27S

Material: Special steel  
Treatment: Electroless nickel plating

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

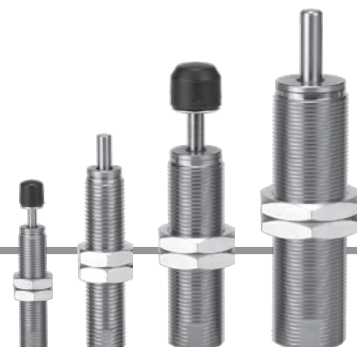
Fluid Control Equipment

Electric Actuators

Auto Switches

# Shock Absorber Soft Type

## Series 25A-RJ



### How to Order

**25A - RJ 0604**

**25A - RJ 0806 H U** [ ]

Series compatible with secondary batteries

Shock absorber/Soft type

O.D. thread size/Stroke

Symbol	O.D. thread	Stroke
0604	6 mm	4 mm
0806	8 mm	6 mm
1007	10 mm	7 mm
1412	14 mm	12 mm
2015	20 mm	15 mm
2725	27 mm	25 mm

Option

Symbol	Hexagon nut	Stopper nut
Nil	2 pcs.	—
J	3 pcs.	—
N	—	—
S	2 pcs.	1 pc.
SJ	3 pcs.	1 pc.
SN	—	1 pc.

With cap

Nil	Basic type
U	With urethane cap

Collision speed range

H	0.05 to 2 m/s
L	0.05 to 1 m/s

\* RJ0604: 0.05 to 1.0 m/s

\* RJ2725H: 0.05 to 1.5 m/s

### Hexagon Nut, Stopper Nut (Option) Part No. for Series 25A-

		Thread size				
		M8	M10	M14	M20	M27
Hexagon nut		25-RB08J	25-RB10J	25-RB14J	25-RB20J	25-RB27J
Stopper nut	Basic type	25-RB08S	25-RB10S	25-RB14S	25-RB20S	25-RB27S
	With cap	25-RBC08S	25-RBC10S	25-RBC14S	25-RBC20S	25-RBC27S

Material: Special steel  
Treatment: Electroless nickel plating

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Shock Absorber Short Stroke Type

## Series 25A-RJ

### How to Order

Short stroke type

**25A - RJ 0805 U**

Series compatible with secondary batteries

Shock absorber/Soft type

O.D. thread size/Stroke

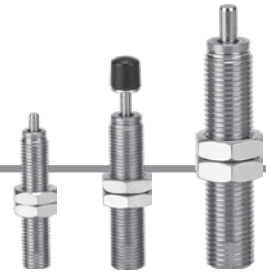
Symbol	O.D. thread	Stroke
0805	8 mm	5 mm
1006	10 mm	6 mm
1410	14 mm	10 mm

Option

Symbol	Hexagon nut	Stopper nut
Nil	2 pcs.	—
J	3 pcs.	—
N	—	—
S	2 pcs.	1 pc.
SJ	3 pcs.	1 pc.
SN	—	1 pc.

With cap

Nil	Basic type
U	With urethane cap



### Hexagon Nut, Stopper Nut (Option) Part No. for Series 25A-

		Thread size		
		M8	M10	M14
Hexagon nut		25-RB08J	25-RB10J	25-RB14J
Stopper nut	Basic type	25-RB08S	25-RB10S	25-RB14S
	With cap	25-RBC08S	25-RBC10S	25-RBC14S

Material: Special steel  
Treatment: Electroless nickel plating

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional  
Control Valves

Air Cylinders

Related  
Products

Rotary  
Actuators

Air Grippers

Vacuum  
Equipment

Air Preparation  
Equipment

Clean  
Air Filters

Air Filters/Pressure  
Control Equipment

Fittings/Flow  
Control Equipment

Detection  
Switches

Fluid Control  
Equipment

Electric  
Actuators

Auto  
Switches

# Floating Joint

## Series 25A-J□



### How to Order

#### Standard type

**25A - JA 80 - 22-150**

Series compatible with secondary batteries

Applicable bore size (mm)

Model	Symbol	Applicable bore size (mm)
Standard	80	80
	100	100

\* For ø63 or less, please consider using the stainless steel type 25A-JS series.

Thread nominal size (Standard)

Nominal thread size	Applicable cylinder nominal thread size
22-150	M22 x 1.5
26-150	M26 x 1.5

\* Specifications and dimensions for the 25A-series are the same as standard products.



### How to Order

#### For compact cylinders

**25A - J B 40 - 8-125**

Series compatible with secondary batteries

For compact cylinders/Female thread

Applicable bore size (mm)

Symbol	Applicable bore size (mm)
12	12
16	16
20	20
25	25
40	32, 40
63	50, 63
80	80
100	100

Thread nominal size

Nominal thread size	Applicable cylinder nominal thread size
3-050	M3 x 0.5
4-070	M4 x 0.7
5-080	M5 x 0.8
6-100	M6 x 1
8-125	M8 x 1.25
10-150	M10 x 1.5
16-200	M16 x 2
20-250	M20 x 2.5

\* Specifications and dimensions for the 25A-series are the same as standard products.

### How to Order

#### Stainless steel type

**25A - J S 32 - 10-125**

Series compatible with secondary batteries

Stainless steel type

Applicable bore size (mm)

Symbol	Applicable bore size (mm)
10	10
16	10, 16
20	20
32	25, 32
40	40
63	50, 63

Thread nominal size

Nominal thread size	Applicable cylinder nominal thread size
4-070	M4 x 0.7
5-080	M5 x 0.8
8-125	M8 x 1.25
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Rotary Table: Basic Type Vane Style

## Series 25A-MSUB

Size: 1, 3, 7, 20

RoHS

### How to Order



**Bearing type**

B	Basic type
---	------------

**Free mount type**

**Connection port location**

Nil	Side ported
E	Axial ported

Available with side ported only, when equipped with auto switch unit.

**Without auto switch** 25A - M SUB 20 - 90 S

**With auto switch** 25A - M D SUB 20 - 90 S - T79 L 1

**Series compatible with secondary batteries**

**With auto switch (Built-in magnet)**

**Nominal size (Torque)**

1	MSUB 1
3	MSUB 3
7	MSUB 7
20	MSUB20

**Rotating angle**

Application	Symbol	Rotating angle
Single vane	90	90°
	180	180°
Double vane	90	90°

Rotation adjustment range  
 Single vane: Both ends ±5° each  
 Double vane: Both ends ±2.5° each

**Vane type**

S	Single vane
D	Double vane

**Number of auto switches**

S	1 pc. *
Nil	2 pcs. **

\* S (1 auto switch) is shipped with a right-hand auto switch.  
 \*\* Nil (2 auto switches) is shipped with a right-hand and a left-hand switch.

**Electrical entry/Lead wire length**

Nil	Grommet/Lead wire: 0.5 m
L	Grommet/Lead wire: 3 m

**Auto switch**

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 163 for applicable auto switches.

\* Specifications and dimensions for the 25A-series are the same as standard products.  
 \* Zinc is used in part of deep groove ball bearing.

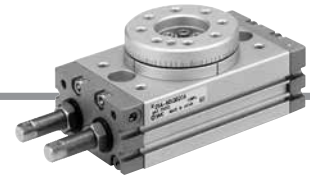
Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches

# Rotary Table: Rack & Pinion Style

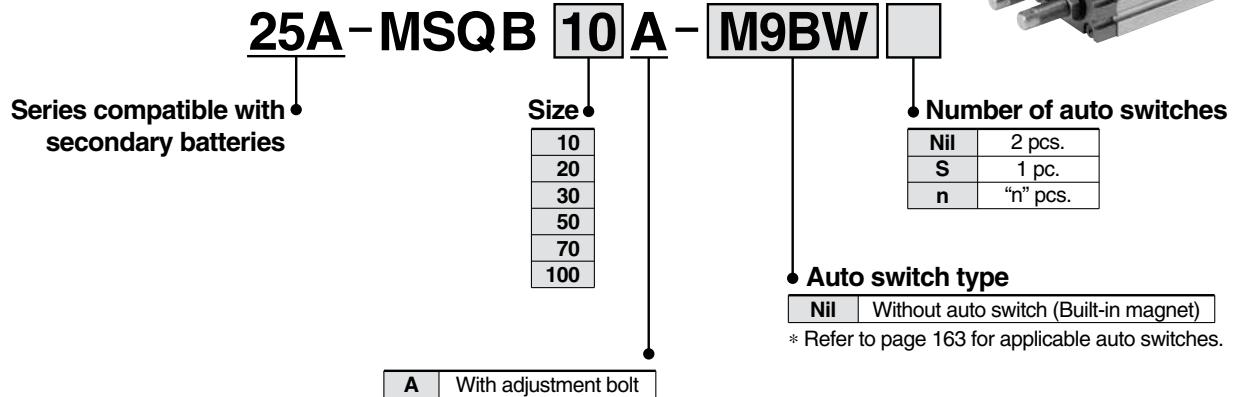
## Series 25A-MSQ

Size: 10, 20, 30, 50, 70, 100

RoHS

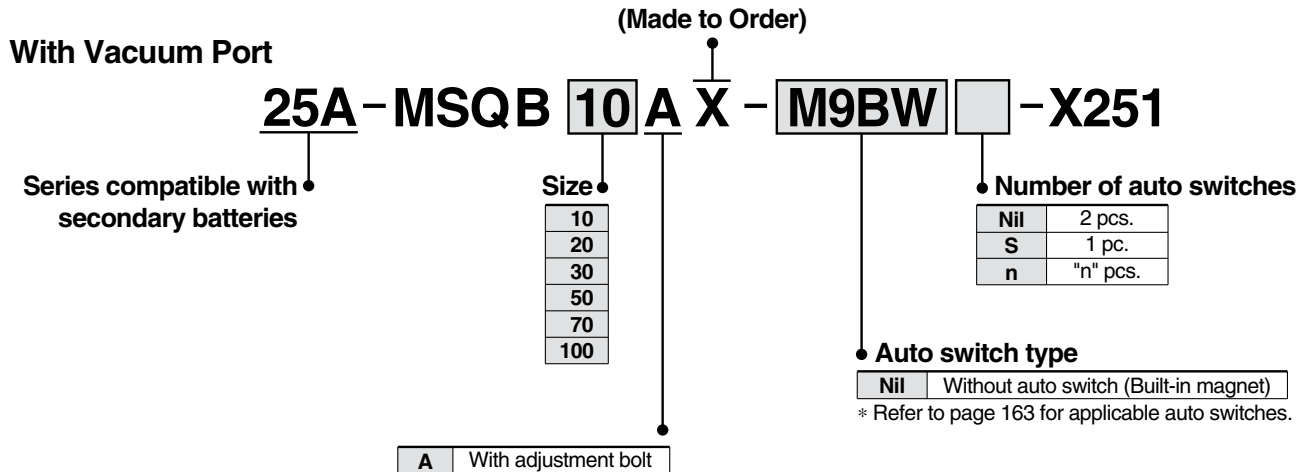


### How to Order



\* Zinc is used in part of deep groove ball bearing and seal washer.  
\* Side port cannot be used.

\* Some parts have sizes and shapes that are different from the standard products.

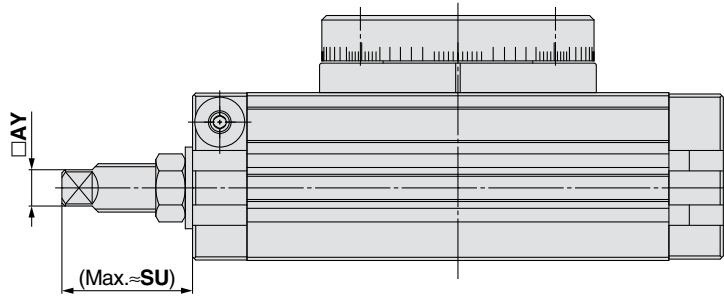


\* Zinc is used in part of deep groove ball bearing and seal washer.  
\* Side port cannot be used.

\* Some parts have sizes and shapes that are different from the standard products.

**Dimensions**

**25A-MSQB□A**

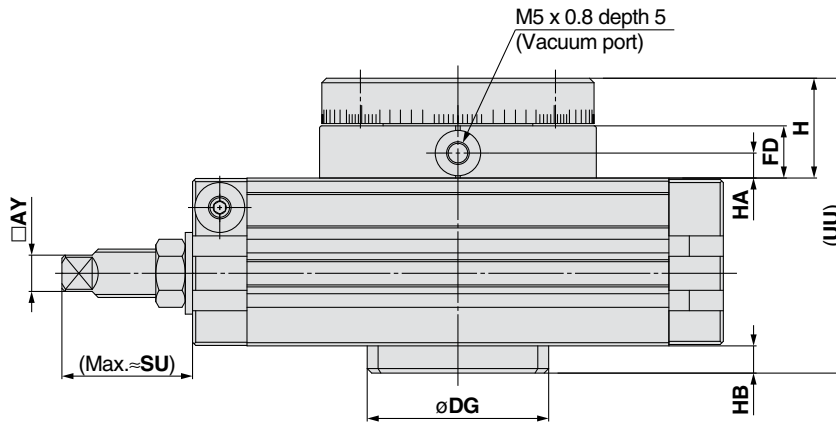


(mm)

Size	AY	SU
10	6	23.7
20	8	33
30	8	33
50	10	42.9
70	16	44.2
100	16	44.3

\* Dimensions other than above are identical to the standard products.

**25A-MSQB□AX-X251**



(mm)

Size	AY	DG	FD	H	HA	HB	SU	UU
10	6	35h9	11.5	20	5.5	5	23.7	59
20	8	40h9	11.5	22	5.5	6	33	65
30	8	48h9	11.5	22	5.5	6	33	68
50	10	54h9	11.5	24	5.5	7	42.9	77
70	16	50h9	12	25	6	7	44.2	85
100	16	52h9	12	27	6	7	44.3	93

\* The product with the vacuum port has no hollow shaft at its rotation center.

\* Dimensions other than above are identical to the standard products.

Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Parallel Style Air Gripper Standard Type

## Series 25A-MHZ2

ø10, ø16, ø20, ø25, ø32, ø40

RoHS



### How to Order

#### Bore size

ø16 to ø25

25A-MHZ2-16 D - M9BW

Series compatible with secondary batteries

Number of fingers

2 2 fingers

Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action

D Double acting

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil Without auto switch (Built-in magnet)

\* Refer to page 163 for the applicable auto switch model.

Finger position/option

**Standard**  
(MHQG2 compatible type)

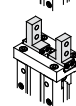
Nil: Basic type



1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers

The flat type fingers do not have standard and narrow options.



**Narrow type**  
(MHQ2 compatible type)

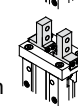
N: Basic type



N1: Side tapped mounting



N2: Through-holes in opening/closing direction



#### Bore size

ø32, ø40

25A-MHZ2-32 D - M9BW

Series compatible with secondary batteries

Number of fingers

2 2 fingers

Bore size

32	32 mm
40	40 mm

Action

D Double acting

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil Without auto switch (Built-in magnet)

\* Refer to page 163 for the applicable auto switch model.

Finger option

[Standard]

Nil: Basic type



1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers



\* Specifications and dimensions for the 25A-series are the same as standard products.

# Parallel Style Air Gripper Long Stroke Type

## Series 25A-MHZL2

RoHS



### How to Order

Series compatible with secondary batteries

**25A - MHZL2 - 16 D**   - **M9BW**  

Number of fingers  
2 2 fingers

Bore size

Symbol	Bore size (mm)
10	10 mm
16	16 mm
20	20 mm
25	25 mm


Action  
D Double acting


Number of auto switches


Nil	2 pcs.
S	1 pc.
n	"n" pcs.


Auto switch  
Nil Without auto switch (Built-in magnet)  
\* Refer to page 163 for the applicable auto switch model.

Finger option

Nil: Basic type 

1: Side tapped mounting 

2: Through-holes in opening/closing direction 

3: Flat type fingers 

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches



Parallel Style Air Gripper with Dust Cover



# Series 25A-MHZJ2

Parallel Style Air Gripper with Dust Cover: Long Stroke Type

# Series 25A-MHZL2 (Made to Order)

## How to Order



**25A - MHZJ2 - 16 D [ ] - M9BW [ ]**

Series compatible with secondary batteries

Number of fingers

2	2 fingers
---	-----------

Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action

D	Double acting
---	---------------

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 163 for the applicable auto switch model.

Dust cover type

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicon rubber (Si)

\* Specifications and dimensions for the 25A-series are the same as standard products.

## Long Stroke Type/ With Dust Cover (Made to Order)

**25A - MHZL2 - 16 D F - M9BW [ ] - X5955**

Series compatible with secondary batteries

Number of fingers

2	2 fingers
---	-----------

Bore size/Stroke

Symbol	Bore size (mm)
10	10 mm
16	16 mm
20	20 mm

Action

D	Double acting
---	---------------

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

\* Refer to page 163 for the applicable auto switch model.

Dust cover type

Nil	Chloroprene rubber (CR)
S	Silicon rubber (Si)
F	Fluororubber (FKM)

\* Specifications for the 25A-series are the same as standard products.

# Low Profile Air Gripper

## Series 25A-MHF2

RoHS

### How to Order



**25A** – **MHF 2** – **12** **D** [ ] [ ] – **M9BW** [ ]

**Number of fingers**  

2	2 fingers
---	-----------

- Series compatible with secondary batteries

**Bore size (mm)**

8	8
12	12
16	16
20	20

**Action**  

D	Double acting
---	---------------

**Stroke**

Nil	Short stroke
1	Medium stroke
2	Long stroke

**Number of auto switches**

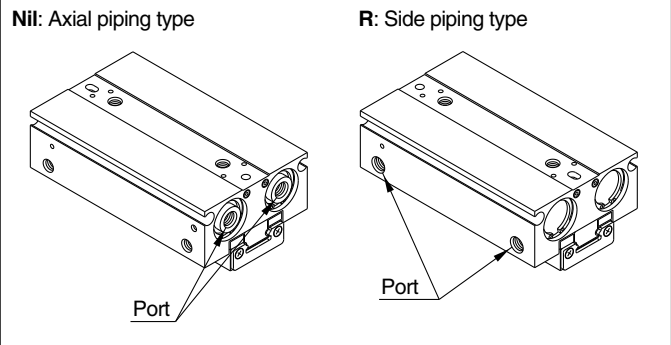
Nil	2 pcs.
S	1 pc.
n	"n" pcs.

**Auto switch**  

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

 \* Refer to page 163 for the applicable auto switch model.

**Body option**



\* Specifications and dimensions for the 25A-series are the same as standard products.

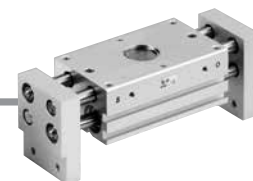
Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches

# Parallel Style Air Gripper: Wide Type

## Series **25A-MHL2**

ø10, ø16, ø20, ø25, ø32

RoHS



### How to Order

**25A-MHL2-20D**    - **M9BW**   

Series compatible with secondary batteries

Wide opening

Number of fingers

2 2 fingers

Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm
32	32 mm
40	40 mm

Action

D Double acting

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil Without auto switch (Built-in magnet)

\* Refer to page 163 for the applicable auto switch model.

Opening/Closing stroke (mm)

Symbol	ø10	ø16	ø20	ø25	ø32	ø40
Nil	20	30	40	50	70	100
1	40	60	80	100	120	160
2	60	80	100	120	160	200

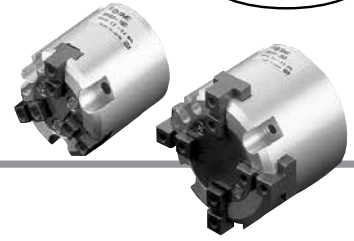
\* Specifications and dimensions for the 25A-series are the same as standard products (Weight is not the same).

# Parallel Style Air Gripper

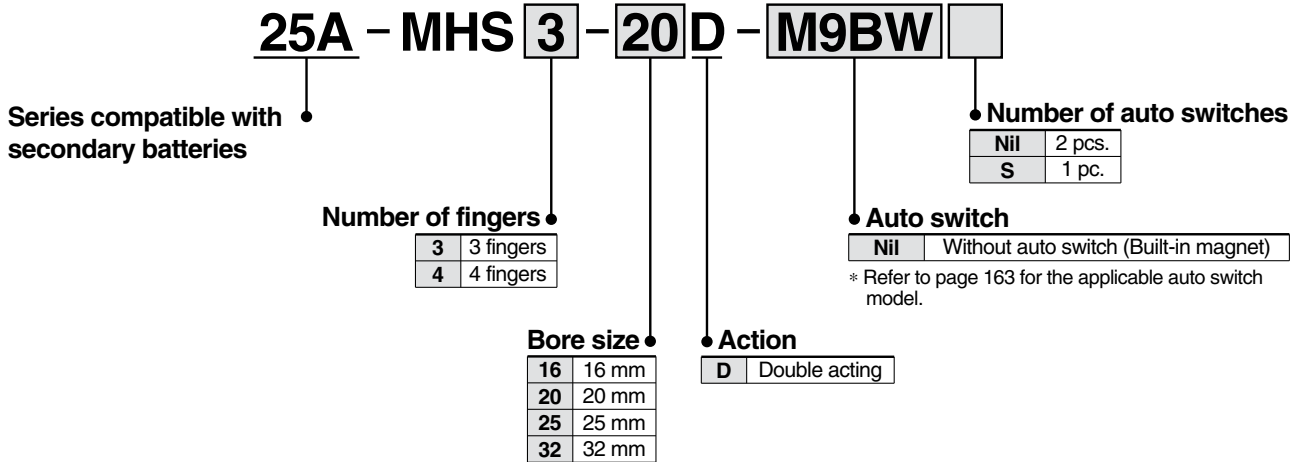
## Series 25A-MHS □

∅16, ∅20, ∅25

RoHS



### How to Order



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches

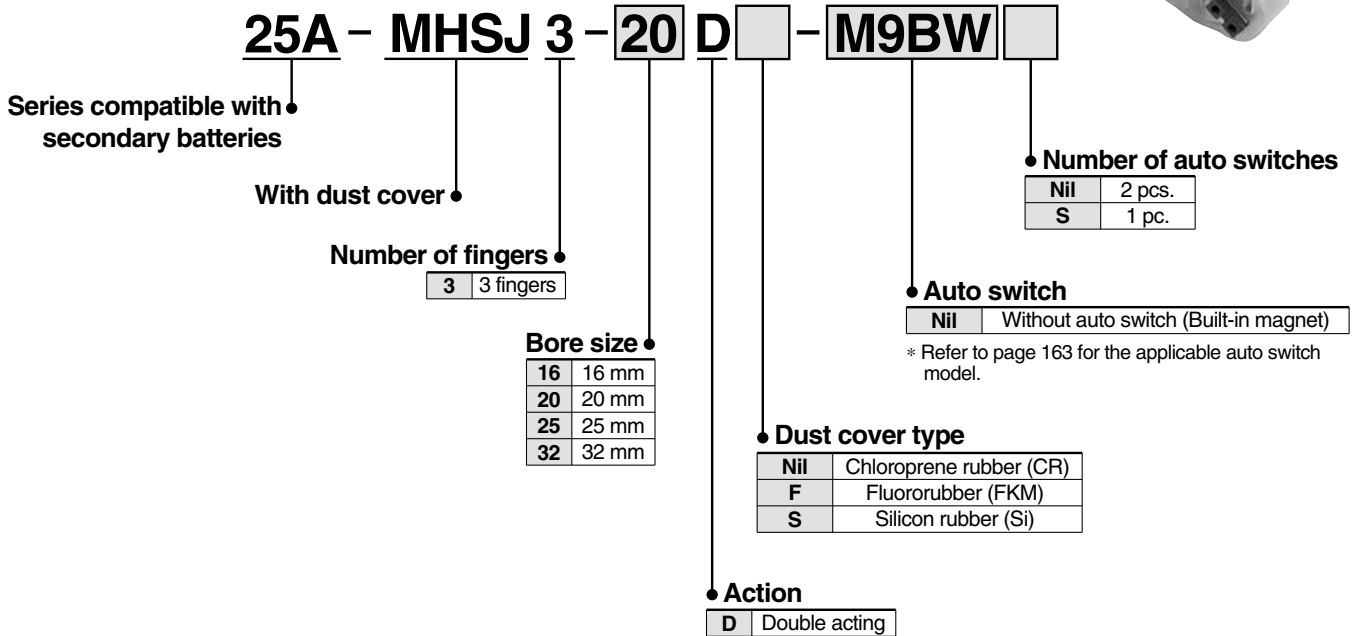
# Parallel Style Air Gripper 3-Finger Type with Dust Cover

## Series **25A-MHSJ3** ø16, ø20, ø25

RoHS



### How to Order



\* Specifications and dimensions for the 25A-series are the same as standard products.

# 180° Angular Style Air Gripper Cam Style

## Series 25A-MHY2

∅10, ∅16, ∅20, ∅25

RoHS

### How to Order



**25A - MHY 2 - 16 D 2 - M9BW** [ ]

Series compatible with secondary batteries

Number of fingers  

2	2 fingers
---	-----------

Bore size  

10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action  

D	Double acting
---	---------------

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

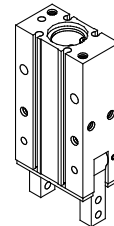
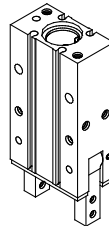
Nil Without auto switch (Built-in magnet)

\* Refer to page 163 for the applicable auto switch model.

Finger option

Nil: Standard tapped mounting

2: Through-holes in opening/closing direction



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

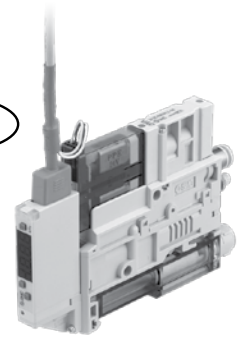
Fluid Control Equipment

Electric Actuators

Auto Switches

# Vacuum Unit

## Series 25A-ZK2



### How to Order Single Unit

Ejector System (with Valve)

25A-ZK2 **A** **12** **K** **5** **A** **L** - **08** -

Ejector System (without Valve)

25A-ZK2 **A** **12** **N** **0** **N** **N** - **08** -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Remains blank when option is not selected.

#### ① System/Body type

Symbol	System	Body type	Exhaust type
<b>A</b>	Ejector system	Single unit	Silencer exhaust
<b>B</b>			Port exhaust <sup>Note 1)</sup>

Note 1) Port size of exhaust port:  $\phi 8$  (Metric)

#### ② Nominal nozzle size

Symbol	System	Nominal size
<b>07</b>	Ejector system <sup>Note 2)</sup>	$\phi 0.7$
<b>10</b>		$\phi 1.0$
<b>12</b>		$\phi 1.2$
<b>15</b>		$\phi 1.5$

Note 2) Standard supply pressure for nozzle size 07 to 12 is 51 psi (0.35 MPa), 15 is 58 psi (0.4 MPa)

#### ④ Rated voltage <sup>Note 6)</sup>

Symbol	Voltage
<b>5</b>	24 VDC
<b>6</b>	12 VDC
<b>0</b>	When ③ is "N"

Note 6) Rated voltage for the supply and release valve

#### ③ Combination of supply valve and release valve <sup>Note 3)</sup>

Symbol	Supply valve	Release valve
<sup>Note 5)</sup> <b>K</b>	N.C.	N.C.
<b>J</b>	N.C.	None
<b>R</b>	Self-holding release valve linked <sup>Note 4)</sup>	N.C.
<b>N</b>	None	None

Note 3) Only non-locking type is available for the manual override for "K, J, R".

Note 4) Self-holding type maintains vacuum by instantaneous energization (20 ms or more). Stopping the vacuum turns on the release valve. (signal to stop vacuum not needed)

Note 5) When the digital pressure switch for vacuum with energy saving function is selected for ⑤, select "K" for ③ Combination of supply valve and release valve.

#### ⑤ Pressure sensor/Digital pressure switch for vacuum specifications

Symbol	Type	Pressure range psi [kPa]	Specifications
<b>P</b>	Pressure sensor	0 to -14.6 [0 to -101]	Analog output 1 to 5 V
<b>T</b>		-14.5 to 14.5 [-100 to 100]	Analog output 1 to 5 V
<b>A</b>	Digital pressure switch for vacuum	0 to -14.6 [0 to -101]	NPN 2 outputs Unit selection function <sup>Note 7)</sup>
<b>B</b>			SI unit only <sup>Note 8)</sup>
<b>C</b>			PNP 2 outputs Unit selection function <sup>Note 7)</sup>
<b>D</b>			SI unit only <sup>Note 8)</sup>
<b>E</b>		-14.5 to 14.5 [-100 to 100]	NPN 2 outputs Unit selection function <sup>Note 7)</sup>
<b>F</b>			SI unit only <sup>Note 8)</sup>
<b>H</b>			PNP 2 outputs Unit selection function <sup>Note 7)</sup>
<b>J</b>			SI unit only <sup>Note 8)</sup>
<b>K</b>	Digital pressure switch for vacuum with energy saving function <sup>Note 9)</sup>	-14.5 to 14.5 [-100 to 100]	NPN 1 output Unit selection function <sup>Note 7)</sup>
<b>Q</b>			SI unit only <sup>Note 8)</sup>
<b>R</b>			PNP 1 output Unit selection function <sup>Note 7)</sup>
<b>S</b>			SI unit only <sup>Note 8)</sup>
<b>N</b>	Without pressure sensor/ Digital pressure switch for vacuum		

Note 7) Unit selection function is not available in Japan due to new measurement law.

Note 8) Fixed unit: kPa

Note 9) When "K, Q, R or S" is selected, select "K" for ③ Combination of supply valve and release valve. Select "W" or "L3" for ⑥.

Manifold type is not available.



- PV: Air pressure supply port/Port for vacuum source (Vacuum pump)
- PS: Pilot pressure supply port ● PD: Individual release pressure supply port
- V: Vacuum port ● EXH: Exhaust port ● PE: Pilot pressure exhaust port

## 6 Supply valve/Release valve/Digital pressure switch for vacuum connector specifications

Symbol	③ For supply valve/release valve <sup>Note 10)</sup>		⑤ Lead wire with connector for pressure switch/ sensor <sup>Note 13)</sup>	Image
	Connector type	Lead wire with connector		
L	L-type plug connector	○ Note 11)	○ Note 14)	
L1		× Note 12)	○ Note 14)	
L2		○ Note 11)	× Note 15)	
L3		× Note 12)	× Note 15)	
W		With lead wire for switch with energy saving function		
Y	Non-valve (without supply/release valve) When "N" is selected for ③		○ Note 14)	
Y1			×	
N	When "N" is selected for both ③ and ⑤ (without supply/release valve, without switch, pressure sensor)			

- Note 10) Solenoid valve with light/surge voltage suppressor  
 Note 11) Standard lead wire length for solenoid valve is 300 mm.  
 Note 12) For lead wire lengths other than standard, select "L1 or L3", and order the connector assembly desired. (Refer to the table on the right.)  
 Note 13) Standard lead wire length for pressure sensor is 3 m. Standard lead wire length with connector for vacuum pressure switch and the lead wire length for switch with energy saving function is 2 m.  
 Note 14) Select "L, L1, Y" when the pressure sensor (P, T) is selected for ⑤ Pressure sensor/Digital pressure switch for vacuum specifications. Since only grommet type is available for the pressure sensor, sensor without lead wire cannot be selected.  
 Note 15) Select when no vacuum pressure switch, pressure sensor, or vacuum pressure switch with connector without lead wire is used.

## 8 Optional specifications/Functions/Applications <sup>Note 17)</sup>

Symbol	Type	Function/Application	Image
Nil	Without option	—	
B	With one bracket for mounting a single unit (Mounting screw is attached.)	Use when a single unit is mounted to the floor in an upright position is requested. (The part number for ordering only a bracket is ZK2-BK1-A. Bolt nuts are included.)	
D	With individual release pressure supply (PD) port type <sup>Note 18)</sup>	Use when supply pressure for vacuum release which pressure is different from the ejector supply pressure is requested.	
J	Vacuum break flow adjustment needle Round lock nut type	Thicker than standard hexagon type. More suitable for hand tightening. Round lock nut improves operability when port exhaust type is used.	
K	Vacuum break flow adjustment needle Screwdriver operation type	Slotted type improves fine adjustment performance when port exhaust type is used.	
W	With exhaust interference prevention valve <sup>Note 19), 20), 21)</sup>	When ejectors are operated individually, exhausted air may flow backward from the V port of ejectors that are OFF. Exhaust interference prevention valve prevents back flow.	

Note) Refer to the **WEB catalog** or the Best Pneumatics No. 4 when mounting single unit to DIN rail.

## 7 Vacuum (V) port <sup>Note 16)</sup>

Symbol	Type	Port size	
06	Metric size	ø6 One-touch fitting	
08		ø8 One-touch fitting	

Note 16) Supply port size of single unit: ø6

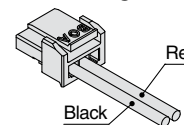
### Connector assembly

ZK2 - LV **W** - A

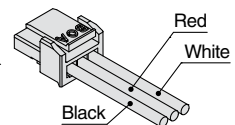
Applicable valve type ● Lead wire length

W	Valve type K/R (With supply valve and release valve)	Nil	300 mm
		6	600 mm
S	Valve type J (Supply valve only)	10	1000 mm
		20	2000 mm
		30	3000 mm

For single



For double



### Single Unit and Options <sup>Note 22)</sup>

	①	②	③	④	⑤	⑥	⑦	⑧			
								B	D	J	K
ZK2	A	07	K	5	P	L	06	●	●	●	●
	10	J	R	6	to	to	08	●	●	●	●
	B	12	R	0	N	N		●	●	●	●

Note 22) When "J or N" is selected for ③ Combination of Supply Valve and Release Valve, "D, J or K" cannot be selected for ⑧ Optional Specifications/Functions/Applications.

For options not in the table, please contact SMC.

Note 17) When more than one option is selected, list the option symbols in an alphabetical order. Example) -BJ

Note 18) Use One-touch fittings or barb fittings with O.D. ø8 or less for piping. (Recommended fitting: KQ2S23-M3G)

Note 19) To prevent backflow of the exhaust air, not for holding vacuum. This option does not completely stop the backflow of the exhaust air. Select port exhaust type depending on purpose.

Note 20) When "J" is selected for ③ Combination of supply valve and release valve and "W" (exhaust interference prevention valve type) is selected for ⑧ Optional specifications/Functions/Applications, install a release valve or vacuum breaker.

Note 21) When "K", "Q", "R", or "S" is selected for ⑤ Pressure sensor/Digital pressure switch for vacuum specifications, the exhaust interference prevention valve is provided. So, it is not necessary to select "W".

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Series 25A-ZK2

## Replacement Parts/How to Order

### ■ Vacuum pressure switch assembly

25A - ZK2 - ZS **E** **A** **M** **G** - A

① ② ③ ④

#### ① Rated pressure range and function

<b>E</b>	0 to -14.6 psi [0 to -101 kPa]	Vacuum pressure switch	Open collector 2 outputs
<b>F</b>	-14.5 to 14.5 psi [-100 to 100 kPa]		
<b>V</b>	-14.5 to 14.5 psi [-100 to 100 kPa]	Pressure switch with energy saving function	Open collector 1 output

#### ② Output specifications

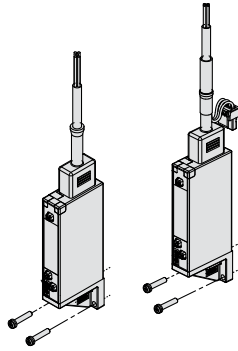
<b>A</b>	NPN
<b>B</b>	PNP

#### ③ Unit specifications

<b>Nil</b>	Unit selection function <sup>Note 1)</sup>
<b>M</b>	SI unit only <sup>Note 2)</sup>

Note 1) Unit selection function is not available in Japan due to measurement law.

Note 2) Fixed unit: kPa



#### ④ Lead wire with connector

<b>Nil</b>	None	
<b>G</b>	With lead wire	When ① is E or F...For vacuum pressure switch, Lead wire with connector (Length 2 m)
		When ① is V...For switch with energy saving function, Lead wire with connector (Length 2 m)

### ■ Lead wire with connector for vacuum pressure switch

(When individual lead wire is necessary, order with the part number below.)

#### ● Lead wire with connector for vacuum pressure switch

ZS - 39 - 5G

#### ● Lead wire with connector for switch with energy saving function

ZK2 - LW **A** 20 - A

#### ● Output specifications

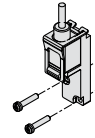
<b>A</b>	NPN open collector
<b>B</b>	PNP open collector

### ■ Pressure sensor assembly

25A - ZK2 - PS **1** - A

#### Rated pressure range and specifications

<b>1</b>	0 to -14.6 psi [0 to -101 kPa], Output: 1 to 5 V, Accuracy: ±2% F.S. or less
<b>3</b>	-14.5 to 14.5 psi [-100 to 100 kPa], Output: 1 to 5 V, Accuracy: ±2% F.S. or less



Auto Switches	Electric Actuators	Fluid Control Equipment	Detection Switches	Fittings/Flow Control Equipment	Air Filters/Pressure Control Equipment	Clean Air Filters	Air Preparation Equipment	Vacuum Equipment	Air Grippers	Rotary Actuators	Related Products	Air Cylinders	Directional Control Valves
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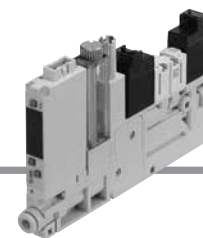


[Option]

Note) CE-compliant:  
For DC only.

# Space Saving Vacuum Ejector

## Series 25A-ZQ



### How to Order

### Ejector Unit

25A-ZQ1 05 1U - K1 5 L - EA G - - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

• Series compatible with secondary batteries

#### ① Nozzle nominal size

05	ø0.5
07	ø0.7
10	ø1.0

#### ② Exhaust type

1U	With silencer for single unit
3M	With silencer for manifold

#### ③ Solenoid valve combination (Refer to Table (1).)

Symbol	Supply valve	Vacuum release valve
K1	Normally closed	Normally closed
K2 <sup>Note 1)</sup>	Normally open	Normally closed
J1	Normally closed	None
J2 <sup>Note 1)</sup>	Normally open	None
Q1	Latching positive common	Normally closed
Q2	Latching positive common	None
N1	Latching negative common	Normally closed
N2	Latching negative common	None

Note 1) In cases when "K2" or "J2" (supply valve normally open) is selected for the solenoid valve combination, when vacuum is stopped for long periods of time (10 minutes or more), do not continue to energize the supply valve, and shut off the air supply.

#### ④ Pilot valve (Refer to Table (1).)

Nil	Standard (DC: 1 W) <sup>Note 2)</sup>
Y	DC low wattage type (0.5 W) <sup>Note 2)</sup>

Note 2) Avoid energizing the solenoid valve for long periods of time. (Refer to Design and Selection on Specific Product Precautions.)

#### ⑤ Solenoid valve rated voltage (Refer to Table (1).)

		CE-compliant
1 <sup>Note 3)</sup>	100 VAC (50/60 Hz)	—
2 <sup>Note 3)</sup>	200 VAC (50/60 Hz)	—
3 <sup>Note 3)</sup>	110 VAC (50/60 Hz)	—
4 <sup>Note 3)</sup>	220 VAC (50/60 Hz)	—
5	24 VDC	●
6	12 VDC	●

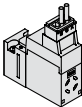
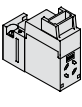
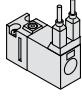
Note 3) CE-compliant products are not available for "1", "2", "3" and "4".

Table (1) Combination of Solenoid Valve, Pilot Valve and Power Supply Voltage

Combination no.	Solenoid valve combination symbol	Pilot valve symbol	Applicable power supply voltage (V)					
			100 AC	200 AC	110 AC	220 AC	24 DC	12 DC
①	K1	Nil	—	—	—	—	●	●
②	K1	Y	—	—	—	—	●	●
③	K2	Nil	—	—	—	—	●	●
④	J1	Nil	●	●	●	●	●	●
⑤	J1	Y	—	—	—	—	●	●
⑥	J2	Nil	—	—	—	—	●	●
⑦	Q1	Nil	—	—	—	—	●	●
⑧	Q2	Nil	●	●	●	●	●	●
⑨	N1	Nil	—	—	—	—	●	●
⑩	N2	Nil	—	—	—	—	●	●

\* Combinations ① to ⑩ in the above table are the only possible options.

## ⑥ Electrical entry

<b>L</b>	L-type plug connector, with 0.3 m lead wire, with light/surge voltage suppressor	
<b>LO</b>	L-type plug connector, without connector, with light/surge voltage suppressor	
<b>G</b>	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

## ⑦ Manual override Note 4)

<b>Nil</b>	Non-locking push type Latching type: Push-locking type
<b>B</b>	Locking type (Q1/Q2/N1/N2: Not applicable)

Note 4) Latching type supply valve: Available in "Nil" only. In this case, the supply valve and release valve come with a push-locking type.

## ⑧ Vacuum pressure switch suction filter Note 5)

<b>EA</b>	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 2 outputs, with suction filter
<b>EB</b>	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 2 outputs, with suction filter
<b>EC</b>	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 1 output + analog voltage, with suction filter
<b>EE</b>	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 1 output + analog voltage, with suction filter
<b>FA</b>	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 2 outputs, with suction filter
<b>FB</b>	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 2 outputs, with suction filter
<b>FC</b>	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 1 output + analog voltage, with suction filter
<b>FE</b>	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 1 output + analog voltage, with suction filter
<b>F</b>	Suction filter only

Note 5) The filter included in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please make additional use of an air suction filter of the ZFA, ZFB or ZFC series.

### ⚠ Warning

The filter case of this suction filter is made of nylon. Contact with alcohol or similar chemicals may cause it to be damaged. Also, do not use the filter when these chemicals are present in the atmosphere.

## ⑪ Check valve Note 8)

<b>Nil</b>	None
<b>K</b>	With check valve

Note 8) The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used. However, depending on usage conditions, it does not always suppress air overflow to the desired extent. During usage, please inspect thoroughly with actual machine. Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

### ⚠ Warning

- ① Cannot be used for vacuum retention.
- ② Use a release valve. (Without a release valve, a workpiece may not be released.)

## ⑫ Fitting (V port)

<b>Symbol</b>	Applicable tubing O.D.
<b>0</b>	Without fitting (M5 x 0.8)

## ⑬ Fitting (P port)

<b>Symbol</b>	Applicable tubing O.D.	Object spec.
<b>Nil</b>	Without port	Manifold
<b>0</b>	Without fitting (M5 x 0.8)	Single unit

## ⑨ Vacuum pressure switch unit specifications

<b>Nil</b>	With unit switching function <small>Note 6)</small>
<b>M</b>	Fixed SI unit <small>Note 7)</small>
<b>P</b>	With unit switching function <small>Note 6)</small> (Initial value psi)

Note 6) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

Note 7) Fixed unit: kPa

## ⑩ Vacuum pressure switch lead wire specifications

<b>Nil</b>	Without connector
<b>G</b>	Lead wire with connector (Lead wire length 2 m) With connector cover

## ⑭ CE-compliant

<b>Nil</b>	—
<b>Q</b>	CE-compliant

Note) CE-compliant: For DC only.

\* Specifications and dimensions for the 25A-series are the same as standard products.

## How to Order

**Manifold**

**25A – ZZQ1 07 – B S C**

**Number of stations** <sup>Note)</sup>

01	1 station
02	2 stations
⋮	⋮
08	8 stations

Note) Number of stations varies according to nozzle nominal size during simultaneous operation.

**Maximum Number of Stations in Simultaneous Operation**

Nozzle nominal size	Maximum number of stations in simultaneous operation
ø0.5	8 stations
ø0.7	6 stations
ø1.0	4 stations

**Air pressure supply (P) port position**

<b>B</b>	Both sides
----------	------------

**Exhaust**

<b>S</b>	With silencers (Both sides)
----------	-----------------------------

**Vacuum release pressure supply port (PD port)**

<b>B</b>	None (Release pressure is supplied from the P port.)
<b>C</b>	Provided (Air can be alternatively supplied from the P port.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

## How to Order

Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches

### Solenoid valve

**Actuation**

1	Normally closed
---	-----------------

**25A-ZQ1-VQ1 1 0** [ ] - **5** **L** [ ]

**Actuation**

2	Normally open
---	---------------

**25A-ZQ1-VQ1 2 0** [ ] - **5** **L** [ ]

**Pilot valve**

Nil	Standard (DC: 1 W)
Y	DC low wattage type (0.5 W) *AC type: Not applicable
L	Latching positive common
N	Latching negative common

**Solenoid valve rated voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

**Manual override** <sup>Note)</sup>

Nil	Non-locking push type Latching type: Push-locking type
B	Locking type

Note) Latching type: Available in "Nil" only

**Electrical entry** <sup>Note)</sup>

L	L-type plug connector, with 0.3 m lead wire	
LO	L-type plug connector, without connector	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

Note) Mounting screws are attached.

**Solenoid valve rated voltage**

5	24 VDC
6	12 VDC

### Vacuum pressure switch

**25A-ZQ1-ZS** [ ] [ ] [ ] [ ] - [ ] - **A**

**Vacuum pressure switch specifications**

EA	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 2 outputs, with suction filter
EB	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 2 outputs, with suction filter
EC	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 1 output + analog voltage, with suction filter
FA	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 2 outputs, with suction filter
FB	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 2 outputs, with suction filter
FC	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 1 output + analog voltage, with suction filter
FE	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 1 output + analog voltage, with suction filter

**Vacuum pressure switch unit specifications**

Nil	With unit switching function <sup>Note 1)</sup>
M	Fixed SI unit <sup>Note 2)</sup>
P	With unit switching function <sup>Note 1)</sup> (Initial value psi)

Note 1) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.  
 Note 2) Fixed unit: kPa

**Vacuum pressure switch lead wire specifications**

Nil	Without connector
G	Lead wire with connector (lead wire length 2 m) With connector cover

**Fitting (V port)**

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

**Check valve** <sup>Note 3)</sup>

Nil	None
K	With check valve

Note 3) The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used, but it is incapable of completely preventing overflow. During usage, please inspect thoroughly with actual machine.  
 Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

**Warning**

① Cannot be used for vacuum retention.  
 ② Use a vacuum release valve. (Without a vacuum release valve, the workpiece may not be released.)

Lead wire with connector part no.	Note
ZS-39-5G	Lead wire length 2 m (With connector cover)

\* Specifications and dimensions for the 25A-series are the same as standard products.

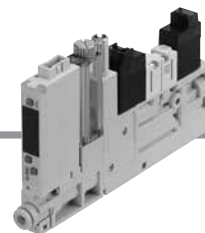


# Space Saving Vacuum Pump System



[Option]  
Note) CE-compliant:  
For DC only.

## Series 25A-ZQ



### How to Order

#### Vacuum pump unit

**25A-ZQ1000** **U** - **K1** **5** **L** - **EA** **G** - **□** **□** - **□**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

• Series compatible with secondary batteries

#### ① Body type

<b>U</b>	For single unit
<b>M</b>	For manifold

#### ② Solenoid valve combination (Refer to Table (1).)

Symbol	Supply valve	Vacuum release valve
<b>K1</b>	Normally closed	Normally closed
<b>K2</b> <sup>Note 1)</sup>	Normally open	Normally closed
<b>J1</b>	Normally closed	None
<b>J2</b> <sup>Note 1)</sup>	Normally open	None
<b>Q1</b>	Latching positive common	Normally closed
<b>Q2</b>	Latching positive common	None
<b>N1</b>	Latching negative common	Normally closed
<b>N2</b>	Latching negative common	None

⚠ The air in the adsorption section of this product is not released to the atmosphere at the vacuum suspension state.  
As for "K1", "K2", "Q1" and "N1", use the vacuum release valve when a workpiece is detached.  
Concerning "J1", "J2", "Q2" and "N2", devise the circuit for the vacuum release additionally when a workpiece is detached.

Note 1) In cases when "K2" or "J2" (supply valve normally open) is selected for the solenoid valve combination, when vacuum is stopped for long periods of time (10 minutes or more), do not continue to energize the supply valve, and shut off the air supply.

#### ③ Pilot valve (Refer to Table (1).)

<b>Nil</b>	Standard (DC: 1 W) <sup>Note 2)</sup>
<b>Y</b>	DC low wattage type (0.5 W) <sup>Note 2)</sup>

Note 2) Avoid energizing the solenoid valve for long periods of time. (Refer to Specific Product Precautions; Caution on Design and Selection.)

#### ④ Solenoid valve rated voltage (Refer to Table (1).)

		CE-compliant
<b>1</b> <sup>Note 3)</sup>	100 VAC (50/60 Hz)	—
<b>2</b> <sup>Note 3)</sup>	200 VAC (50/60 Hz)	—
<b>3</b> <sup>Note 3)</sup>	110 VAC (50/60 Hz)	—
<b>4</b> <sup>Note 3)</sup>	220 VAC (50/60 Hz)	—
<b>5</b>	24 VDC	●
<b>6</b>	12 VDC	●

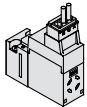
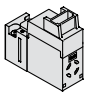

Note 3) CE-compliant products are not available for "1", "2", "3" and "4".

Table (1) Combination of Solenoid Valve, Pilot Valve and Rated Voltage

Combination no.	Solenoid valve combination symbol	Pilot valve symbol	Applicable power supply voltage (V)					
			100 AC	200 AC	110 AC	220 AC	24 DC	12 DC
①	<b>K1</b>	<b>Nil</b>	—	—	—	—	●	●
②	<b>K1</b>	<b>Y</b>	—	—	—	—	●	●
③	<b>K2</b>	<b>Nil</b>	—	—	—	—	●	●
④	<b>J1</b>	<b>Nil</b>	●	●	●	●	●	●
⑤	<b>J1</b>	<b>Y</b>	—	—	—	—	●	●
⑥	<b>J2</b>	<b>Nil</b>	—	—	—	—	●	●
⑦	<b>Q1</b>	<b>Nil</b>	—	—	—	—	●	●
⑧	<b>Q2</b>	<b>Nil</b>	●	●	●	●	●	●
⑨	<b>N1</b>	<b>Nil</b>	—	—	—	—	●	●
⑩	<b>N2</b>	<b>Nil</b>	—	—	—	—	●	●

\* Combinations ① to ⑩ in the above table are the only possible options.

## ⑤ Electrical entry

<b>L</b>	L-type plug connector, with 0.3 m lead wire, with light/surge voltage suppressor	
<b>LO</b>	L-type plug connector, without connector, with light/surge voltage suppressor	
<b>G</b>	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

## ⑥ Manual override Note 4)

<b>Nil</b>	Non-locking push type Latching type: Push-locking type
<b>B</b>	Locking type (Q1/Q2/N1/N2: Not applicable)

Note 4) Latching type supply valve: Available in "Nil" only. In this case, the supply valve and release valve come with a push-locking type.

## ⑦ Vacuum pressure switch suction filter Note 5)

<b>EA</b>	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 2 outputs, with suction filter
<b>EB</b>	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 2 outputs, with suction filter
<b>EC</b>	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 1 output + analog voltage, with suction filter
<b>EE</b>	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 1 output + analog voltage, with suction filter
<b>FA</b>	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 2 outputs, with suction filter
<b>FB</b>	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 2 outputs, with suction filter
<b>FC</b>	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 1 output + analog voltage, with suction filter
<b>FE</b>	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 1 output + analog voltage, with suction filter
<b>F</b>	Suction filter only

Note 5) The filter included in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please make additional use of an air suction filter of the ZFA, ZFB or ZFC series.

### ⚠ Warning

The filter case of this suction filter is made of nylon. Contact with alcohol or similar chemicals may cause it to be damaged. Also, do not use the filter when these chemicals are present in the atmosphere.

## ⑩ Fitting (V port) Note 8)

Symbol	Applicable tubing O.D.
<b>0</b>	Without fitting (M5 x 0.8)

## ⑪ Fitting (PS / PV port) Note 8)

Symbol	Applicable tubing O.D.	Part no.	Object spec.
<b>Nil</b>	Without port	—	Manifold
<b>0</b>	Without fitting (M5 x 0.8)	—	Single unit

## ⑫ CE-compliant

<b>Nil</b>	—
<b>Q</b>	CE-compliant

Note) CE-compliant: For DC only.

Note 8) For filter only (Without vacuum pressure switch)

When neither V port fitting nor PS/PV port fitting are needed, enter nothing or -00 in the dotted line "How to Order".

## ⑧ Vacuum pressure switch unit specifications

<b>Nil</b>	With unit switching function <small>Note 6)</small>
<b>M</b>	Fixed SI unit <small>Note 7)</small>
<b>P</b>	With unit switching function <small>Note 6)</small> (Initial value psi)

Note 6) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

Note 7) Fixed unit: kPa

## ⑨ Vacuum pressure switch lead wire specifications

<b>Nil</b>	Without connector
<b>G</b>	Lead wire with connector (Lead wire length 2 m) With connector cover

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches

## How to Order

**Manifold** 25A – ZZQ1 **08** – **0** **0**

Number of stations ●

01	1 station
02	2 stations
⋮	⋮
08	8 stations

Vacuum pressure supply port (PV port)  
Port location  
(Refer to Table (1).) ●

L	Left side
R	Right side

**Table (1) Air Pressure Supply Port Location on the Manifold**

PD port	Manifold Port location	Left			Right		
		PS	PV	PD	PS	PV	PD
B	L (Left side)	—	●	—	● <sup>Note)</sup>	—	—
	R (Right side)	● <sup>Note)</sup>	—	—	—	●	—
C	L (Left side)	—	●	●	●	—	●
	R (Right side)	●	—	●	—	●	●

Note) The position of each port is shown as right and left sides viewed from the front side of the vacuum port.

Release pressure is commonly supplied from the PS port.

\* PS: Pilot pressure supply port, PV: Vacuum pressure supply port, PD: Release pressure supply port

Release pressure supply port (PD port) ●

B	None (Release pressure is supplied from the PS port.)
C	Provided (Air can be alternatively supplied from the PS port.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

## How to Order

### Solenoid valve

**Actuation**

1	Normally closed
---	-----------------

**25A-ZQ1-VQ1 1 0** - **5 L**

**Actuation**

2	Normally open
---	---------------

**25A-ZQ1-VQ1 2 0** - **5 L**

**Pilot valve**

Nil	Standard (DC: 1 W)
Y	DC low wattage type (0.5 W) *AC type: Not applicable
L	Latching positive common
N	Latching negative common

**Solenoid valve rated voltage**

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

**Manual override** <sup>Note)</sup>

Nil	Non-locking push type Latching type: Push-locking type
B	Locking type

Note) Latching type: Available in "Nil" only

**Electrical entry** <sup>Note)</sup>

L	L-type plug connector, with 0.3 m lead wire	
LO	L-type plug connector, without connector	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

Note) Mounting screws are attached.

**Solenoid valve rated voltage**

5	24 VDC
6	12 VDC

### Vacuum pressure switch

**25A-ZQ1-ZS** - **A**

**Vacuum pressure switch specifications**

EA	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 2 outputs, with suction filter
EB	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 2 outputs, with suction filter
EC	0 to -14.6 psi [0 to -101 kPa]/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -14.6 psi [0 to -101 kPa]/PNP open collector 1 output + analog voltage, with suction filter
FA	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 2 outputs, with suction filter
FB	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 2 outputs, with suction filter
FC	14.5 to -14.5 psi [100 to -100 kPa]/NPN open collector 1 output + analog voltage, with suction filter
FE	14.5 to -14.5 psi [100 to -100 kPa]/PNP open collector 1 output + analog voltage, with suction filter

**Vacuum pressure switch unit specifications**

Nil	With unit switching function <sup>Note 1)</sup>
M	Fixed SI unit <sup>Note 2)</sup>
P	With unit switching function <sup>Note 1)</sup> (Initial value psi)

Note 1) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.  
Note 2) Fixed unit: kPa

**Vacuum pressure switch lead wire specifications**

Nil	Without connector
G	Lead wire with connector (Lead wire length 2 m) With connector cover

**Fitting (V port)**

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

**Check valve** <sup>Note 3)</sup>

Nil	None
K	With check valve

Note 3) The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used, but it is incapable of completely preventing overflow. During usage, please inspect thoroughly with actual machine. Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

**Warning**

① Cannot be used for vacuum retention.  
② Use a vacuum release valve. (Without a vacuum release valve, the workpiece may not be released.)

Lead wire with connector part no.	Note
ZS-39-5G	Lead wire length 2 m (With connector cover)

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Membrane Air Dryer

## Series 25A-IDG

RoHS

### Single Unit/Standard Dew Point $-40^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ ) Specifications



#### How to Order

**25A - IDG** **50** **L** **A -** **03** **- P**

Series compatible with secondary batteries

Flow rate by size

Size	Outlet air flow rate scfm [L/min (ANR)]
30	2.65 [75]
50	3.88 [110]
60	6.00 [170]
75	8.47 [240]
100	10.6 [300]

Standard dew point temperature

Symbol	Standard dew point
L	$-40^{\circ}\text{F}$ ( $-40^{\circ}\text{C}$ )

#### Piping materials for low dew point air

If air of a low dew point ( $-40^{\circ}\text{F}$  [ $-40^{\circ}\text{C}$ ] or less) is required, do not use a nylon tube piping and resin fittings (except fluoropolymer) for the outlet side of the membrane air dryer. Due to the nature of the nylon tube, it could be affected by the ambient air, and it might not be possible to achieve the prescribed low dew point at the end of the tube. Therefore, for low dew point air, use a stainless steel or fluoropolymer piping.

Semi-standard

Symbol	Contents
Nil	None
R	Flow direction (Right → Left)

Fitting for purge air discharge

Symbol	Contents
P	With fitting for purge air discharge

Accessory

Symbol	Description
Nil	None
B	With bracket

Note) When symbol B is indicated, a bracket assembly with a part number shown in the table left below is shipped together as an accessory, (but not assembled).

Port size

Symbol	Bore	Size				
		30	50	60	75	100
02	Rc1/4	●	●	—	—	—
03	Rc3/8	●	●	●	●	●
04	Rc1/2	—	—	●	●	●

#### Bracket Assembly (Accessory) Part No.

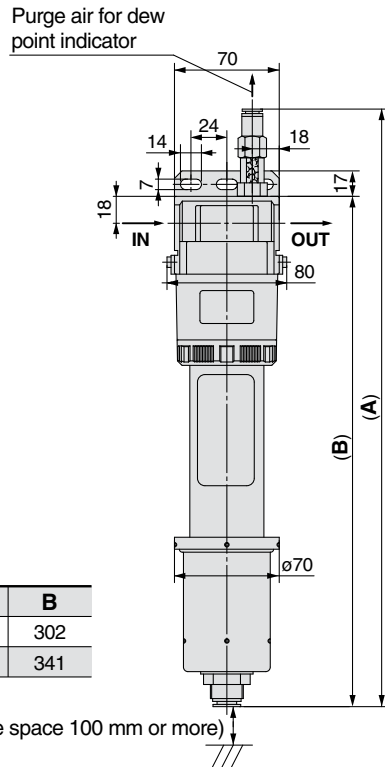
Part no.	Applicable model
25A-BM64	25A-IDG30LA, 50LA
25A-BM65	25A-IDG60LA, 75LA, 100LA

\* With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

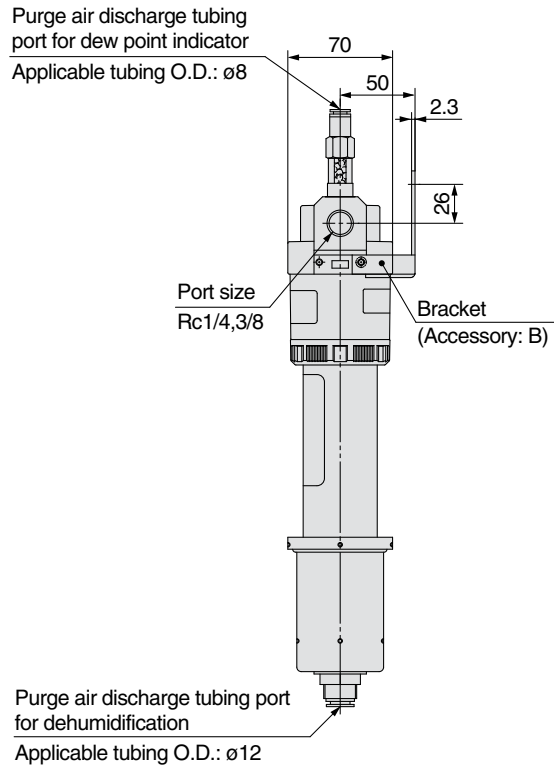
\* Specifications for the 25A-series are the same as standard products.

## Dimensions

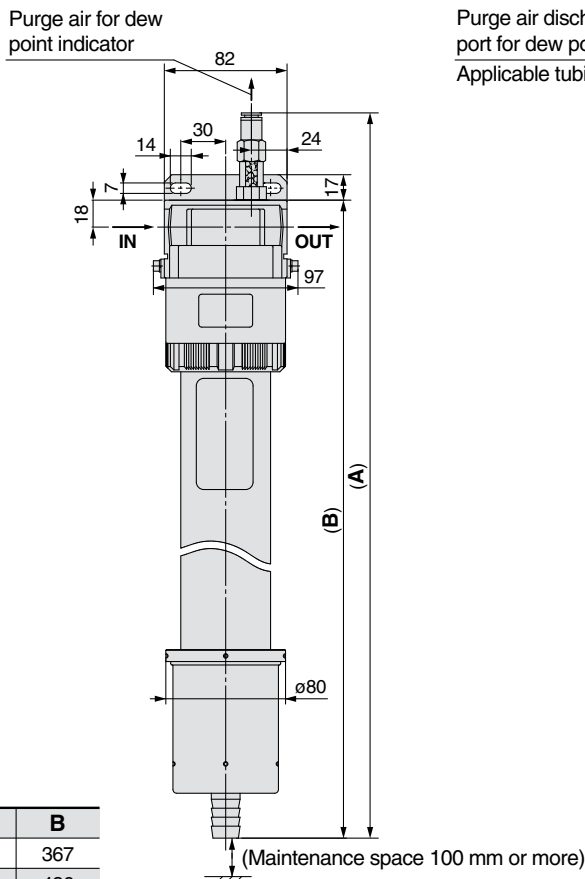
### 25A-IDG30LA 25A-IDG50LA



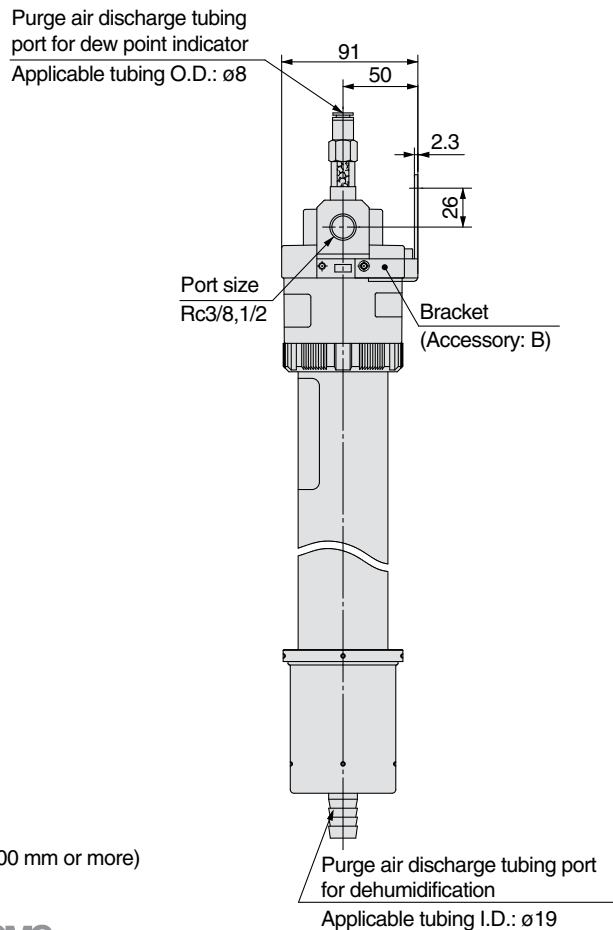
Model	A	B
25A-IDG30LA	360	302
25A-IDG50LA	399	341



### 25A-IDG60LA 25A-IDG75LA 25A-IDG100LA



Model	A	B
25A-IDG60LA	426	367
25A-IDG75LA	495	436
25A-IDG100LA	560	501



# Main Line Filter

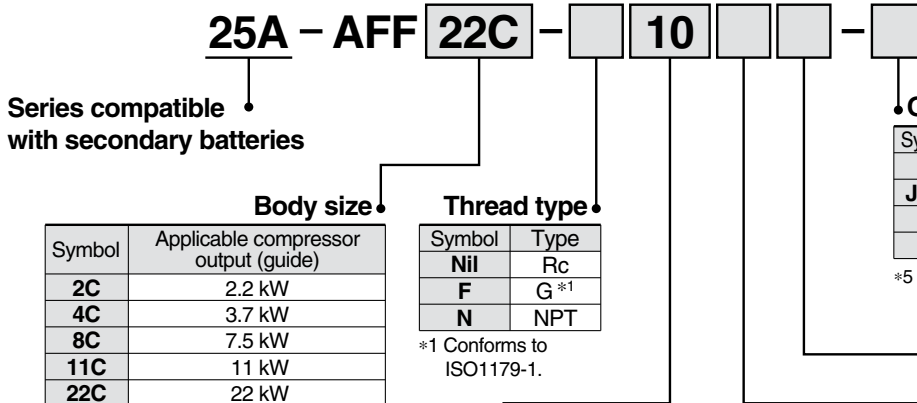
## Series 25A-AFF

RoHS



### How to Order

#### 25A-AFF2C to 25A-AFF22C



Symbol	Applicable compressor output (guide)
2C	2.2 kW
4C	3.7 kW
8C	7.5 kW
11C	11 kW
22C	22 kW

Symbol	Type
Nil	Rc
F	G *1
N	NPT

\*1 Conforms to ISO1179-1.

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

#### Port size

Symbol	Size	Applicable body size				
		2C	4C	8C	11C	22C
01	1/8	●	—	—	—	—
02	1/4	●	●	—	—	—
03	3/8	—	●	●	—	—
04	1/2	—	—	●	●	—
06	3/4	—	—	—	●	●
10	1	—	—	—	—	●

#### Auto drain\*4

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

\*4 Only one drain exhaust method can be selected. The drain cock, N.C. auto drain, N.O. auto drain and drain guide cannot be selected together.

#### Bracket Assembly Part No.\*3

Applicable model	Part no.
25A-AFF2C	25A-AM-BM101
25A-AFF4C	25A-AM-BM102
25A-AFF8C	25A-AM-BM103
25A-AFF11C	25A-AM-BM104
25A-AFF22C	25A-AM-BM105

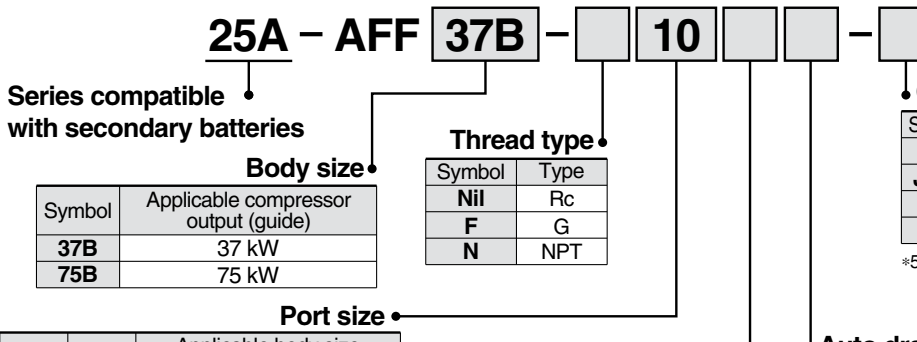
\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

#### Accessory

Symbol	Description
Nil	—
B	Bracket *2

\*2 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### 25A-AFF37B/75B



Symbol	Applicable compressor output (guide)
37B	37 kW
75B	75 kW

Symbol	Type
Nil	Rc
F	G
N	NPT

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded (37B only)
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

Symbol	Size	Applicable body size	
		37B	75B
10	1	●	—
14	1 1/2	●	●
20	2	—	●

#### Accessory

Symbol	Description
Nil	—
B	Bracket *1

\*1 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### Auto drain\*4

Symbol	Description
Nil	Drain cock (Without auto drain) *2
D	N.O. auto drain (37B only)

\*2 Body size 75B is equipped with a ball valve (Rc 3/8 female threaded).

\*4 Body size 37B: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

#### Bracket Assembly Part No.\*3

Applicable model	Part no.
25A-AFF37B	25A-BM56
25A-AFF75B	25A-BM57

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

\* Specifications and dimensions for the 25A-series are the same as standard products.



# Mist Separator

## Series 25A-AM

RoHS



### How to Order

#### 25A-AM150C to 25A-AM550C

25A - AM 550C - [ ] 10 [ ] [ ] - [ ]

Series compatible with secondary batteries

#### Body size

Symbol	Applicable compressor output (guide)
150C	2.2 kW
250C	3.7 kW
350C	7.5 kW
450C	11 kW
550C	22 kW

#### Thread type

Symbol	Type
Nil	Rc
F	G *1
N	NPT

\*1 Conforms to ISO1179-1.

#### Option

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

#### Auto drain\*4

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

\*4 Only one drain exhaust method can be selected. The drain cock, N.C. auto drain, N.O. auto drain and drain guide cannot be selected together.

#### Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●	—	—	—	—
02	1/4	●	●	—	—	—
03	3/8	—	●	●	—	—
04	1/2	—	—	●	●	—
06	3/4	—	—	—	●	●
10	1	—	—	—	—	●

#### Bracket Assembly Part No.\*3

Applicable model	Part no.
25A-AM150C	25A-AM-BM101
25A-AM250C	25A-AM-BM102
25A-AM350C	25A-AM-BM103
25A-AM450C	25A-AM-BM104
25A-AM550C	25A-AM-BM105

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

#### Accessory

Symbol	Description
Nil	—
B	Bracket *2

\*2 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### 25A-AM650/850

25A - AM 650 - [ ] 10 [ ] [ ] - [ ]

Series compatible with secondary batteries

#### Body size

Symbol	Applicable compressor output (guide)
650	37 kW
850	75 kW

#### Thread type

Symbol	Type
Nil	Rc
F	G
N	NPT

#### Option

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded (650 only)
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

#### Auto drain\*4

Symbol	Description
Nil	Drain cock (Without auto drain) *2
D	N.O. auto drain (650 only)

\*2 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded).

\*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

#### Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

#### Accessory

Symbol	Description
Nil	—
B	Bracket *1

\*1 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### Bracket Assembly Part No.\*3

Applicable model	Part no.
25A-AM650	25A-BM56
25A-AM850	25A-BM57

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Micro Mist Separator

## Series 25A-AMD



### How to Order

#### 25A-AMD150C to 25A-AMD550C

**25A - AMD 550C - [ ] 10 [ ] [ ] - [ ]**

**Series compatible with secondary batteries**

**Body size**

150C
250C
350C
450C
550C

**Thread type**

Symbol	Type
Nil	Rc
F	G *1
N	NPT

\*1 Conforms to ISO1179-1.

**Option**

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

**Auto drain\*4**

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

\*4 Only one drain exhaust method can be selected. The drain cock, N.C. auto drain, N.O. auto drain and drain guide cannot be selected together.

**Accessory**

Symbol	Description
Nil	—
B	Bracket *2

\*2 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

**Port size**

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●	—	—	—	—
02	1/4	●	●	—	—	—
03	3/8	—	●	●	—	—
04	1/2	—	—	●	●	—
06	3/4	—	—	—	●	●
10	1	—	—	—	—	●

**Bracket Assembly Part No.\*3**

Applicable model	Part no.
25A-AMD150C	25A-AM-BM101
25A-AMD250C	25A-AM-BM102
25A-AMD350C	25A-AM-BM103
25A-AMD450C	25A-AM-BM104
25A-AMD550C	25A-AM-BM105

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

#### 25A-AMD650/850

**25A - AMD 650 - [ ] 10 [ ] [ ] - [ ]**

**Series compatible with secondary batteries**

**Body size**

650
850

**Thread type**

Symbol	Type
Nil	Rc
F	G
N	NPT

**Option**

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded (650 only)
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

**Auto drain\*4**

Symbol	Description
Nil	Drain cock (Without auto drain) *2
D	N.O. auto drain (650 only)

\*2 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded).

\*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

**Accessory**

Symbol	Description
Nil	—
B	Bracket *1

\*1 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

**Port size**

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

**Bracket Assembly Part No.\*3**

Applicable model	Part no.
25A-AMD650	25A-BM56
25A-AMD850	25A-BM57

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Micro Mist Separator with Pre-filter

## Series 25A-AMH



### How to Order

#### 25A-AMH150C to 25A-AMH550C

25A – AMH 550C – [ ] 10 [ ] [ ] – [ ]

Series compatible with secondary batteries

**Body size**

150C
250C
350C
450C
550C

**Thread type**

Symbol	Type
Nil	Rc
F	G *1
N	NPT

\*1 Conforms to ISO1179-1.

**Port size**

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●	—	—	—	—
02	1/4	●	●	—	—	—
03	3/8	—	●	●	—	—
04	1/2	—	—	●	●	—
06	3/4	—	—	—	●	●
10	1	—	—	—	—	●

**Bracket Assembly Part No. \*3**

Applicable model	Part no.
25A-AMH150C	25A-AMBM101
25A-AMH250C	25A-AMBM102
25A-AMH350C	25A-AMBM103
25A-AMH450C	25A-AMBM104
25A-AMH550C	25A-AMBM105

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

**Option**

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

**Auto drain \*4**

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

\*4 Only one drain exhaust method can be selected. The drain cock, N.C. auto drain, N.O. auto drain and drain guide cannot be selected together.

**Accessory**

Symbol	Description
Nil	—
B	Bracket *2

\*2 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### 25A-AMH650/850

25A – AMH 650 – [ ] 10 [ ] [ ] – [ ]

Series compatible with secondary batteries

**Body size**

650
850

**Thread type**

Symbol	Type
Nil	Rc
F	G
N	NPT

**Port size**

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

**Accessory**

Symbol	Description
Nil	—
B	Bracket *1

\*1 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

**Option**

Symbol	Description
Nil	—
J*4,*5	Drain guide 1/4 female threaded (650 only)
R	IN-OUT reversal direction
T	With element service indicator

\*5 Drain piping and piping for a stop valve such as ball valve are required.

**Auto drain \*4**

Symbol	Description
Nil	Drain cock (Without auto drain) *2
D	N.O. auto drain (650 only)

\*2 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded).  
\*4 Body size 650: Only one drain exhaust method can be selected. The drain cock, N.O. auto drain and drain guide cannot be selected together.

**Bracket Assembly Part No. \*3**

Applicable model	Part no.
25A-AMH650	25A-BM56
25A-AMH850	25A-BM57

\*3 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

\* Specifications and dimensions for the 25A-series are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Exhaust Cleaner for Clean Room

## Series 25A-AMP

RoHS



### How to Order

25A - AMP 2 20 - 03 [ ] - [ ] T

Series compatible with secondary batteries

#### Body size

Symbol	Size
2	1/4 standard
3	3/8 standard
4	1/2 standard

#### Element construction

Symbol	Stage
2	2 stage

#### Port size

Symbol	Port size	Body size		
		2	2	2
02	Rc1/4	●	—	—
03	Rc3/8	●	●	—
04	Rc1/2	—	●	●
06	Rc3/4	—	—	●

With element service indicator

#### Semi-standard specifications

Symbol	Description
Nil	None
R	Flow direction Right→Down*3

\*3 Flow direction when the nameplate is viewed from the front.

#### Accessories

Symbol	Name
Nil	None
B	With bracket *1

\*1 When symbol "B" is indicated, a bracket assembly with a part number shown in the left table is shipped together as an accessory, (but not assembled).

#### Bracket Assembly Part No.\*2

Applicable model	Part no.
25A-AMP220	25A-BM66
25A-AMP320	25A-BM67
25A-AMP420	25A-BM68

\*2 With hexagon socket head bolts (2 pcs.) and spring washers (2 pcs.).

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Air Filter

# 25A-AF20 to 25A-AF60



## How to Order

25A - AF **30** - **03** **B** -

1   
 2   
 3   
 4   
 5

• Series compatible with secondary batteries

• Option/Semi-standard: Select one each for **a** to **c**.  
 • Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.  
 Example) 25A-AF30-N03B-RZ

		Symbol	Description	①					
				Body size					
				20	30	40	50	60	
②	Thread type	Nil	Rc	●	●	●	●	●	
		N	NPT	●	●	●	●	●	
		F	G	●	●	●	●	●	
		+							
③	Port size	01	1/8	●	—	—	—	—	
		02	1/4	●	●	●	—	—	
		03	3/8	—	●	●	—	—	
		04	1/2	—	—	●	—	—	
		06	3/4	—	—	●	●	—	
		10	1	—	—	—	●	●	
		+							
④ Option	a	Mounting	Nil	Without mounting option	●	●	●	●	●
			B <sup>Note 1)</sup>	With bracket	●	●	●	●	●
		+							
⑤ Semi-standard	b	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●	●
	c	Pressure unit	Nil	Name plate and caution plate for bowl in imperial units: MPa	●	●	●	●	●
Z <sup>Note 2)</sup>			Name plate and caution plate for bowl in imperial units: psi, °F	○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>	

Note 1) A bracket is not assembled and supplied loose at the time of shipment. Including 2 mounting screws.

Note 2) ○ : For thread type: NPT. This product is for overseas use only according to the new Measurement Law.

(The SI unit type is provided for use in Japan.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches

# Mist Separator

# 25A-AFM20 to 25A-AFM40

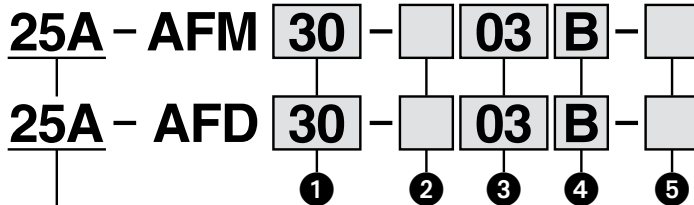
# Micro Mist Separator

# 25A-AFD20 to 25A-AFD40



- Series 25A-AFM Nominal filtration rating: 0.3 μm
- Series 25A-AFD Nominal filtration rating: 0.01 μm

## How to Order



• Series compatible with secondary batteries

- Option/Semi-standard: Select one each for **a** to **c**.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order. Example) 25A-AFM30-N03B-RZ

	Symbol	Description	⑰					
			Body size					
			20	30	40			
⑥	Thread type	Nil	Rc	●	●	●		
		N	NPT	●	●	●		
		F	G	●	●	●		
+								
⑦	Port size	01	1/8	●	—	—		
		02	1/4	●	●	●		
		03	3/8	—	●	●		
		04	1/2	—	—	●		
		06	3/4	—	—	●		
+								
⑧	Option	a	Mounting	Nil	Without mounting option	●	●	●
				B <sup>Note 1)</sup>	With bracket	●	●	●
+								
⑨	Semi-standard	b	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		c	Pressure unit	Nil	Name plate and caution plate for bowl in imperial units: MPa	●	●	●
Z <sup>Note 2)</sup>	Name plate and caution plate for bowl in imperial units: psi, °F			○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>	○ <sup>Note 2)</sup>		

Note 1) A bracket is not assembled and supplied loose at the time of shipment. Including 2 mounting screws.  
 Note 2) ○ : For thread type: NPT. This product is for overseas use only according to the new Measurement Law.  
 (The SI unit type is provided for use in Japan.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Regulator

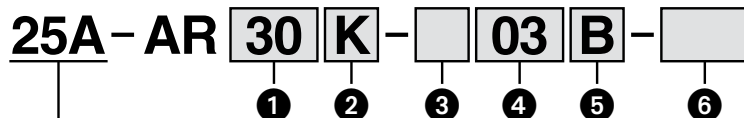
# 25A-AR20 to 25A-AR60

## Regulator with Backflow Function

# 25A-AR20K to 25A-AR60K



### How to Order



Series compatible with secondary batteries

- Option/Semi-standard: Select one each for a to e.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.  
Example) 25A-AR30K-03B-1NR

	Symbol	Description	①						
			Body size						
			20	25	30	40	50	60	
②	With backflow function	Nil	Without backflow function						
		K	With backflow function						
③	Thread type	Nil	Rc						
		N	NPT						
		F	G						
④	Port size	01	1/8						
		02	1/4						
		03	3/8						
		04	1/2						
		06	3/4						
		10	1						
⑤ <small>Note 1)</small> Option	a	Mounting	Nil	Without mounting option					
			B <small>Note 2)</small>	With bracket					
			H	With set nut (For panel fitting)					
⑥ Semi-standard	b	Set pressure	Nil	7.3 to 123 psi (0.05 to 0.85 MPa) setting					
			1 <small>Note 3)</small>	2.9 to 29 psi (0.02 to 0.2 MPa) setting					
	c	Exhaust mechanism	Nil	Relieving type					
			N	Non-relieving type					
	d	Flow direction	Nil	Flow direction: Left to right					
			R	Flow direction: Right to left					
	e	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa					
Z <small>Note 4)</small>			Name plate and pressure gauge in imperial units: psi						

Note 1) Option "B", "H" are not assembled and supplied loose at the time of shipment.

Note 2) Assembly of a bracket and set nuts (25A-AR20(K) to 25A-AR40(K)). Including 2 mounting screws for the 25A-AR50(K) and 25A-AR60(K).

Note 3) Pressure can be set at the upper limit of the specification or more, however, be sure to set the pressure within specification.

Note 4) ○: For thread type: NPT. This product is for overseas use only according to the new Measurement Law.

(The SI unit type is provided for use in Japan.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Bracket, Set Nut Part No. for Series 25A-

Option	Model	25A-AR20 (K)	25A-AR25 (K)	25A-AR30 (K)	25A-AR40 (K)	25A-AR50 (K) 25A-AR60 (K)
Bracket assembly <small>Note 1)</small>		AR20P-270AS	AR25P-270AS	AR30P-270AS	AR40P-270AS	25A-AR50P-270AS <small>Note 2)</small>
Set nut		AR20P-260S	AR25P-260S	AR30P-260S	AR40P-260S	— <small>Note 3)</small>

Note 1) Assembly of a bracket and set nuts.

Note 2) Assembly of a bracket and 2 mounting screws.

Note 3) Please consult with SMC regarding the set nuts for the 25A-AR50(K) and 25A-AR60(K).



Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches



# Filter Regulator

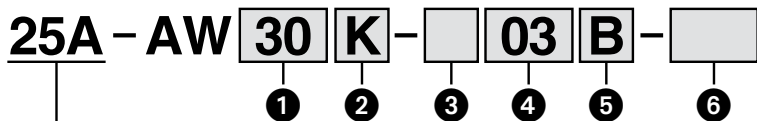
# 25A-AW20 to 25A-AW60

## Filter Regulator with Backflow Function

# 25A-AW20K to 25A-AW60K



### How to Order



• Series compatible with secondary batteries

- Option/Semi-standard: Select one each for a to e.
  - Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
- Example) 25A-AW30K-03B-1N

	Symbol	Description	①				
			Body size				
			20	30	40	60	
② With backflow function	Nil	Without backflow function	●	●	●	●	
	K	With backflow function	●	●	●	●	
+							
③ Thread type	Nil	Rc	●	●	●	●	
	N	NPT	●	●	●	●	
	F	G	●	●	●	●	
+							
④ Port size	01	1/8	●	—	—	—	
	02	1/4	●	●	●	—	
	03	3/8	—	●	●	—	
	04	1/2	—	—	●	—	
	06	3/4	—	—	●	●	
	10	1	—	—	—	●	
+							
⑤ <sup>Note 1)</sup> Option	a Mounting	Nil	Without mounting option	●	●	●	●
		<sup>Note 2)</sup> B	With bracket	●	●	●	●
		H	With set nut (For panel fitting)	●	●	●	—
+							
	b Set pressure	Nil	73 to 123 psi (0.05 to 0.85 MPa) setting	●	●	●	●
		<sup>Note 3)</sup> 1	2.9 to 29 psi (0.02 to 0.2 MPa) setting	●	●	●	●
+							
	c Exhaust mechanism	Nil	Relieving type	●	●	●	●
		N	Non-relieving type	●	●	●	●
+							
⑥ Semi-standard	d Flow direction	Nil	Flow direction: Left to right	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●
+							
	e Pressure unit	Nil	Name plate, caution plate for bowl, and pressure gauge in imperial units: MPa	●	●	●	●
		<sup>Note 4)</sup> Z	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F	○ <sup>Note 4)</sup>	○ <sup>Note 4)</sup>	○ <sup>Note 4)</sup>	○ <sup>Note 4)</sup>

Note 1) Option "B", "H" are not assembled and supplied loose at the time of shipment.

Note 2) Assembly of a bracket and set nuts (25A-AW20K to 25A-AW40K). Including 2 mounting screws for the 25A-AW60K.

Note 3) Pressure can be set at the upper limit of the specification or more, however, be sure to set the pressure within specification.

Note 4) ○ : For thread type: NPT. This product is for overseas use only according to the new Measurement Law.

(The SI unit type is provided for use in Japan.)

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Bracket, Set Nut Part No. for Series 25A-

Model	25A-AW20 (K)	25A-AW30 (K)	25A-AW40 (K)	25A-AW60 (K)
Option				
Bracket assembly <sup>Note 1)</sup>	AW20P-270AS	AR30P-270AS	AR40P-270AS	25A-AW60P-270AS <sup>Note 2)</sup>
Set nut	AR20P-260S	AR30P-260S	AR40P-260S	— <sup>Note 3)</sup>

Note 1) Assembly of a bracket and set nuts.

Note 2) Assembly of a bracket and 2 mounting screws.

Note 3) Please consult with SMC regarding the set nuts for the 25A-AW60(K).

# Precision Regulator

RoHS

## Series 25A-IR1000/2000/3000

### How to Order



**25A - IR 2 0 0 0 - 02** □

Series compatible with secondary batteries

Precision regulator

Body size

1	25A-IR1000
2	25A-IR2000
3	25A-IR3000

Accessory

Nil	None
B	With bracket

Port size

Symbol	size	Application		
		25A-IR1000	25A-IR2000	25A-IR3000
01	Rc1/8	●	—	—
02	Rc1/4	—	●	●
03	Rc3/8	—	—	●
04	Rc1/2	—	—	●

Regulating pressure range

For Series 25A-IR1000/2000

0	0.73 to 29 psi (0.005 to 0.2 MPa)
1	1.45 to 58 psi (0.01 to 0.4 MPa)
2	1.45 to 116 psi (0.01 to 0.8 MPa)

For Series 25A-IR3000

0	1.45 to 29 psi (0.01 to 0.2 MPa)
1	1.45 to 58 psi (0.01 to 0.4 MPa)
2	1.45 to 116 psi (0.01 to 0.8 MPa)

\* Some assemblies other than the above models are available. Consult with SMC for availability.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Electro-Pneumatic Regulator

## Series 25A-ITV2000

### How to Order



25A - ITV 2 0 1 0 - 0 1 [ ] 2 [ ] S [ ]

Series compatible with secondary batteries

**Model**

1	1000 type
2	2000 type
3	3000 type

**Pressure range**

1	14.5 psi (0.1 MPa)
3	72.5 psi (0.5 MPa)
5	131 psi (0.9 MPa)

**Power supply voltage**

0	24 VDC
1	12 to 15 VDC

**Input signal**

0	Current type 4 to 20 mA DC (Sink type)
1	Current type 0 to 20 mA DC (Sink type)
2	Voltage type 0 to 5 VDC
3	Voltage type 0 to 10 VDC
40	4 points preset input

**Monitor output**

1	Analog output 1 to 5 VDC
2	Switch output/NPN output
3	Switch output/PNP output
4	Analog output 4 to 20 mA DC (Sink type)
Nil	None (For 4 points preset input)

**Pressure display unit**

Nil	MPa
2 Note)	kgf/cm <sup>2</sup>
3	bar
4 Note)	psi
5	kPa

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

**Cable connector type**

S	Straight type 3 m
N	Without cable connector

Note) A dedicated cable connector whose material was changed is used.

**Bracket**

Nil	Without bracket
B	Flat bracket
C	L-bracket

Note) The dedicated brackets with Raydent treatment are used.

**Port size**

1	1/8 (1000 type)
2	1/4 (1000, 2000, 3000 type)
3	3/8 (2000, 3000 type)
4	1/2 (3000 type)

**Thread type**

Nil	Rc
N	NPT
T	NPTF
F	G

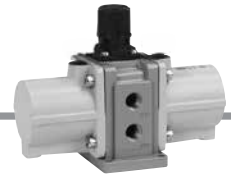
\* Since an electrical circuit is used, this product is not completely copper-free. Only the wetted parts are copper-free.

\* Specifications and dimensions for the 25A-series are the same as standard products.

# Booster Regulator

## Series 25A-VBA

RoHS



### How to Order

25A - VBA 40A - [ ] 04 [ ]

Series compatible with secondary batteries

Body size		Pressure increase ratio: Twice
10A	1/4", Handle-operated type	
20A	3/8", Handle-operated type	
40A	1/2", Handle-operated type	

#### Thread type <sup>(Note)</sup>

Symbol	Thread type
Nil	Rc
F	G
N	NPT
T	NPTF

Note) Thread types apply to the IN, OUT, and EXH ports of the VBA10A and to the IN, OUT, EXH, and gauge ports of the VBA20A and VBA40A. The gauge ports of the VBA10A are Rc thread type regardless of the thread type indication.

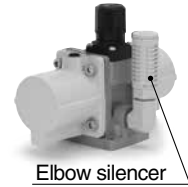
#### Port size

Symbol	Port size	Applicable series
02	1/4	VBA10A
03	3/8	VBA20A
04	1/2	VBA40A

#### Option

Symbol	Option
Nil	None
N	Silencer
S	High-noise reduction silencer <sup>(Note)</sup>
LN	Elbow silencer <sup>(Note)</sup>
LS	Elbow high-noise reduction silencer <sup>(Note)</sup>

Note) Refer to "Combination of Thread Type and Options." Pressure gauge is not available as an option.



### Combination of Thread Type and Options

Body size	Thread type	Option					Semi-standard
		Nil	N	S	LN	LS	
10A	Nil	●	●	●	●	●	●
	F	●	●	●	●	●	●
	N	●	●	—	●	—	●
	T	●	●	—	●	—	●
20A	Nil	●	●	●	/	/	●
	F	●	●	●			●
	N	●	●	●			●
	T	●	●	●			●
40A	Nil	●	●	●	/	/	●
	F	●	●	●			●
	N	●	●	●			●
	T	●	●	●			●

### Air Tank Compatibility Chart

Air tank \ Booster regulator	25A-VBA10A	25A-VBA20A	25A-VBA40A
25A-VBAT05A1	●	—	—
25A-VBAT05S1	●	●	—
25A-VBAT10A1	●	●	—
25A-VBAT10S1	—	●	●
25A-VBAT20A1	—	●	●
25A-VBAT20S1	—	●	●
25A-VBAT38A1	—	●	●
25A-VBAT38S1	—	●	●

### Caution

- Not compatible with a low dew point

\* Specifications and dimensions for the 25A-series are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Air Tank

## Series 25A-VBAT

RoHS

### How to Order



- Compact connections are possible with booster regulators.
- It can be used alone as a tank.

**Standard product**  
(For Japanese market)

Note) The thread type for each port is Rc.

**25A - VBAT 10 A 1**

Tank internal capacity

Symbol	Internal capacity
05	5 L
10	10 L
20	20 L
38	38 L

Material

Symbol	Material
A	Carbon steel (SS400)
S	Stainless steel

Note 1) Order drain valve (VBAT-V2) separately.

Note 2) Safety valve is not available as an option.

- Series compatible with secondary batteries

### ⚠ Caution

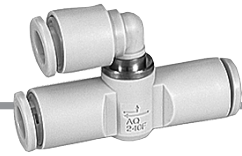
When used as a single unit (not connected with a booster regulator) and pressurized at over 1 MPa at normal temperatures, the air tank falls under the scope of the “High Pressure Gas Safety Act” in Japan.

\* Specifications and dimensions for the 25A-series are the same as standard products.

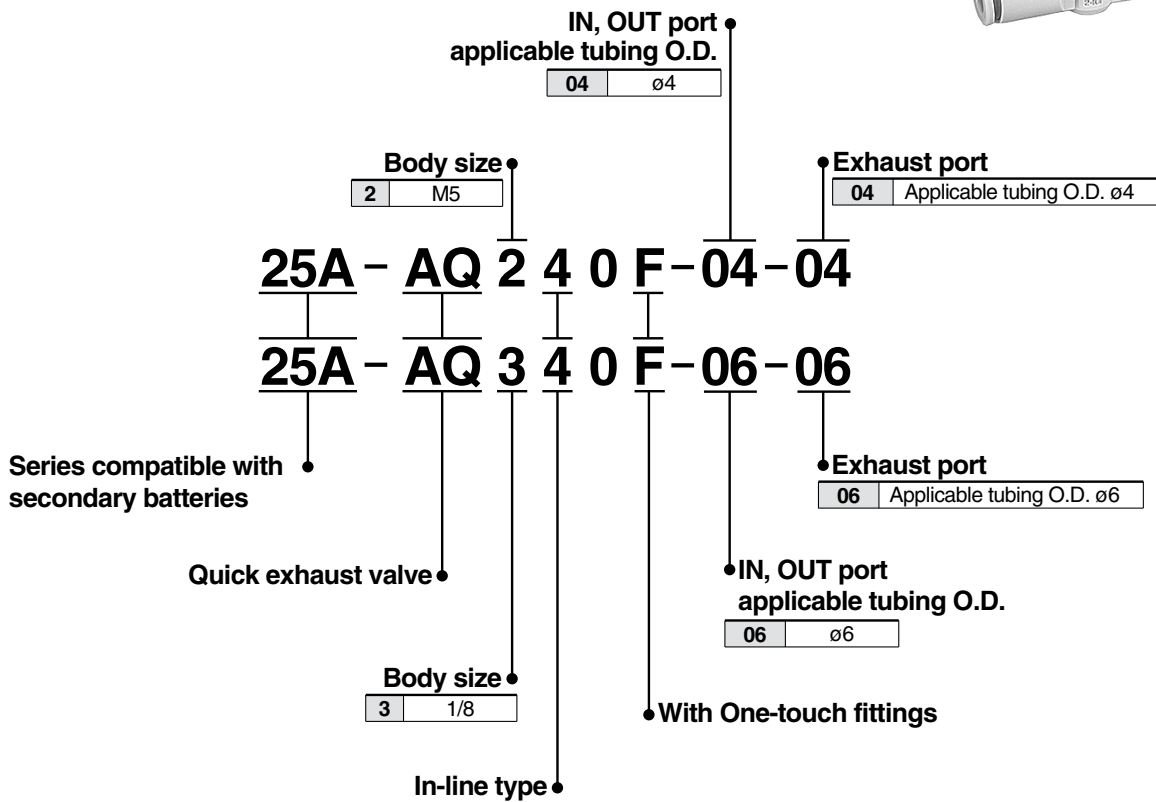
# Quick Exhaust Valve with One-touch Fittings

RoHS

## Series 25A-AQ240F/340F



### How to Order



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Air Filters/Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches

# Check Valve with One-touch Fittings *Series 25A-AKH*

RoHS

## How to Order

**Straight type**

**25A - AKH 04 - 00**

Series compatible with  
secondary batteries

Applicable tubing O.D.  
Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12



\* Specifications and dimensions for the 25A-series are the same as standard products.

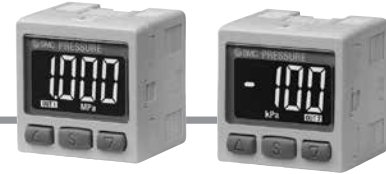


# 2-Color Display High-Precision Digital Pressure Switch



RoHS

## Series 25A-ZSE30A(F)/25A-ISE30A



### How to Order

25A - ISE30A - 01 - N - M

Series compatible with secondary batteries

Rated pressure range

Series	Rated pressure range
ISE30A	-14.5 to 145 psi (-0.1 to 1 MPa)
ZSE30A	0 to -14.6 psi (0 to -101 kPa)
ZSE30AF	-14.5 to 14.5 psi (-100 to 100 kPa)

Piping specifications

Code	Specification	Image
01	R1/8 (M5 female threaded)	

Output specifications

N	NPN open collector 1 output
P	PNP open collector 1 output
A	NPN open collector 2 outputs
B	PNP open collector 2 outputs
C*	NPN open collector 1 output + Analog voltage output
D*	NPN open collector 1 output + Analog current output
E*	PNP open collector 1 output + Analog voltage output
F*	PNP open collector 1 output + Analog current output

\* Made to Order

Unit specifications

Nil	With display unit <sup>Note 1)</sup> switching function
M	Fixed SI unit <sup>Note 2)</sup>
P*	With display unit <sup>Note 1)</sup> switching function (Initial value psi)

\* Made to Order

Note 1) Under the New Measurement Law, sales of switches with the unit switching function have not been allowed for use in Japan.

Note 2) Unit: kPa, MPa

Option 3

Symbol	Operation manual <sup>Note)</sup>	Calibration certificate <sup>Note)</sup>
Nil	<input type="radio"/>	<input type="checkbox"/>
Y	<input type="checkbox"/>	<input type="checkbox"/>
K	<input type="radio"/>	<input type="radio"/>
T	<input type="checkbox"/>	<input type="radio"/>

Note) All texts in both English and Japanese

Option 2

Nil	None
B	Panel mount adapter 25A-ZS-27-C 
D	Panel mount adapter + Front protection cover 25A-ZS-27-D 

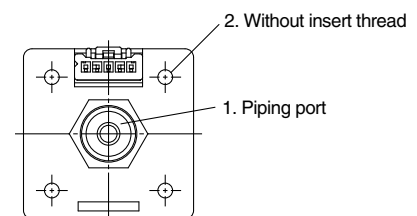
Option 1

Nil	Without lead wire 
L	Lead wire with connector (Lead wire length 2 m) <sup>Note)</sup> 
G	Lead wire with connector (Lead wire length 2 m) <sup>Note)</sup> With connector cover 

Note) For output types "N" and "P", the number of core of lead wires will be 3, and for other types, 4 cores will be required.

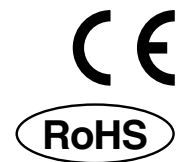
### Secondary Batteries (25A) Specifications

- Piping port material: Stainless steel
  - Without insert thread for bracket mounting
- Others are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# 2-Color Display High-Precision Digital Pressure Switch



## Series 25A-ZSE40A(F)/25A-ISE40A



### How to Order

**25A - ISE40A - 01 - X SDPC - M**

Series compatible with secondary batteries

#### Rated pressure range

ISE40A	-14.5 to 145 psi (-0.1 to 1 MPa)
ZSE40A	0 to -14.6 psi (0 to -101 kPa)
ZSE40AF	-14.5 to 14.5 psi (-100 to 100 kPa)

#### Piping specifications

01	R1/8 (With M5 female thread)	
----	---------------------------------	--

#### Output specifications

Symbol	Wiring specifications	
X	SDPC	NPN open collector 2 outputs
Y		PNP open collector 2 outputs
R		NPN open collector 1 output + Analog voltage output/Auto-shift switching
S		NPN open collector 1 output + Analog current output/Auto-shift switching
T		PNP open collector 1 output + Analog voltage output/Auto-shift switching
V	PNP open collector 1 output + Analog current output/Auto-shift switching	
X	Nil	NPN open collector 2 outputs + Copy function
Y		PNP open collector 2 outputs + Copy function
R		NPN open collector 2 outputs + Analog voltage output/Auto-shift switching
S		NPN open collector 2 outputs + Analog current output/Auto-shift switching
T		PNP open collector 2 outputs + Analog voltage output/Auto-shift switching
V		PNP open collector 2 outputs + Analog current output/Auto-shift switching

#### Wiring specifications

SDPC	M12 4-pin pre-wired connector (Lead wire length 0.5 m)
Nil	Without connector (Lead wire length 2 m)

#### Unit specifications

Nil	With unit switching function <sup>Note 1)</sup>
M	Fixed SI unit <sup>Note 2)</sup>
P	With unit switching function <sup>Note 1)</sup> (Initial value psi)

Note 1) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

Note 2) Unit: kPa, MPa

#### Option 2

Symbol	Calibration certificate <sup>Note)</sup>
Nil	—
K	○

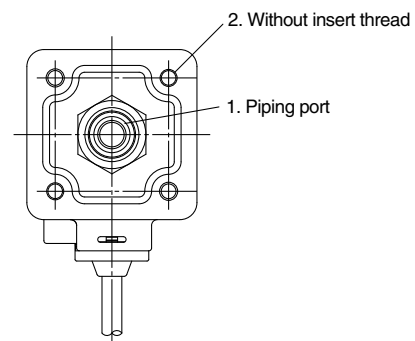
Note) All texts in both English and Japanese

#### Option 1

Nil	None
E	Panel mount adapter ZS-35-C 
F	Panel mount adapter + Front protective cover ZS-35-F 

#### Secondary Batteries (25A) Specifications

- Piping port material: Stainless steel
- Without insert thread for bracket mounting  
Others are the same as standard products.



# 2-Color Display Digital Pressure Switch for General Fluids

## Series 25A-ZSE80(F)/25A-ISE80



### How to Order



**25A** - **ISE80** - **02** - **A** **SDPC** - **M** [ ] [ ]

Series compatible with secondary batteries

Rated pressure range

<b>ISE80</b>	-14.5 to 145 psi (-0.1 to 1 MPa)
<b>ZSE80</b>	0 to -14.6 psi (0 to -101 kPa)
<b>ZSE80F</b>	-14.5 to 14.5 psi (-100 to 100 kPa)

Piping specifications

<b>02</b>	R1/4 (M5 female threaded)
-----------	------------------------------

Output specifications

Symbol	Wiring specifications	
<b>A</b>	<b>SDPC</b>	NPN open collector 2 outputs
<b>B</b>		PNP open collector 2 outputs
<b>R</b>		NPN open collector 1 output + Analog voltage output/Auto-shift switching
<b>S</b>		NPN open collector 1 output + Analog current output/Auto-shift switching
<b>T</b>		PNP open collector 1 output + Analog voltage output/Auto-shift switching
<b>V</b>	PNP open collector 1 output + Analog current output/Auto-shift switching	
<b>N</b>	<b>Nil</b>	NPN open collector 1 output
<b>P</b>		PNP open collector 1 output
<b>A</b>		NPN open collector 2 outputs
<b>B</b>		PNP open collector 2 outputs
<b>R</b>		NPN open collector 2 outputs + Analog voltage output/Auto-shift switching
<b>S</b>		NPN open collector 2 outputs + Analog current output/Auto-shift switching
<b>T</b>		PNP open collector 2 outputs + Analog voltage output/Auto-shift switching
<b>V</b>		PNP open collector 2 outputs + Analog current output/Auto-shift switching

Wiring specifications

<b>SDPC</b>	M12 4-pin pre-wired connector (Lead wire length 0.5 m)
<b>Nil</b>	Without connector (Lead wire length 2 m)

Unit specifications

<b>Nil</b>	With unit display switching function <sup>Note 1)</sup>
<b>M</b>	Fixed SI unit <sup>Note 2)</sup>
<b>P</b>	Initial value psi <sup>Note 1)</sup>

Note 1) Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

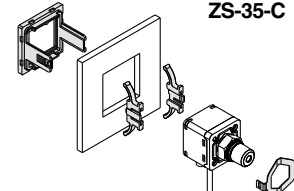
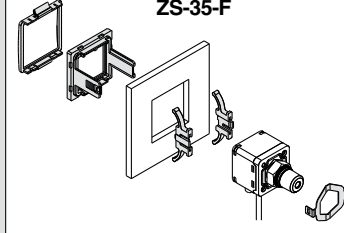
Note 2) Unit: kPa, MPa

Option 2

Symbol	Operation manual <sup>Note)</sup>	Calibration certificate <sup>Note)</sup>
<b>Nil</b>	●	—
<b>Y</b>	—	—
<b>K</b>	●	●
<b>T</b>	—	●

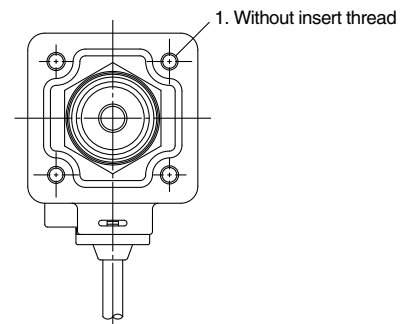
Note) All texts in both English and Japanese

Option 1

<b>Nil</b>	None
<b>C</b>	Panel mount adapter <b>ZS-35-C</b>  Rear ported
	Panel mount adapter + Front protection cover <b>ZS-35-F</b>  Rear ported

### Secondary Batteries (25A) Specifications

- Without insert thread for bracket mounting  
Others are the same as standard products.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# 2-Color Display Digital Flow Switch

Integrated display



## Series 25A-PFM7



### How to Order

**Integrated display**

**25A - PFM7 10 - C6 - A - M - W**

Series compatible with secondary batteries

Type: 7 Integrated display

Rated flow range (Flow rate range)

10	0.2 to 10 (5) L/min
25	0.5 to 25 (12.5) L/min
50	1 to 50 (25) L/min
11	2 to 100 (50) L/min

\* ( ): Fluid: CO<sub>2</sub>

Port size

Symbol	Description	Flow rate range			
		10	25	50	11
01	Rc1/8	●	●	●	—
02	Rc1/4	—	—	—	●
N01	NPT1/8	●	●	●	—
N02	NPT1/4	—	—	—	●
F01	G1/8	●	●	●	—
F02	G1/4	—	—	—	●
C6	ø6 One-touch fitting	●	●	●	●
C8	ø8 (5/16") One-touch fitting	—	●	●	●

Piping entry direction

Nil	Straight
L	Bottom

Output specifications

A	2 NPN outputs
B	2 PNP outputs
C	1 NPN output + Analog output (1 to 5 V)
D	1 NPN output + Analog output (4 to 20 mA)
E	1 PNP output + Analog output (1 to 5 V)
F	1 PNP output + Analog output (4 to 20 mA)
G	1 NPN output + External input <sup>Note 3)</sup>
H	1 PNP output + External input <sup>Note 3)</sup>

Note 3) User can select from accumulated value external reset, auto-shift and auto-shift zero.

Unit specifications

Nil	With unit switching function <sup>Note 2)</sup>
M	Fixed SI unit <sup>Note 1)</sup>

Note 1) Fixed unit: Instantaneous flow rate: L/min  
Accumulated flow: L

Note 2) Under Japan's new Measurement Act, this is only for overseas sales.  
(SI units are to be used inside Japan.)

Option 1

W	Lead wire with connector (2 m) + Rubber cover for connector (Silicon rubber)
---	--

Calibration certificate

Nil	None
A	With calibration certificate

\* The certificate is written in English and Japanese.  
Other languages are available as specials.

Operation manual

Nil	With operation manual (Japanese and English)
N	None

Option 2

Nil	None
R	Bracket (For without flow adjustment valve) <b>25A-ZS-33-M</b> 
T	Panel mount adapter (For without flow adjustment valve) <b>ZS-33-J</b> 

\* Specifications and dimensions for the 25A-series are the same as standard products.  
\* Digital flow switch with flow adjustment valve is not standard product.  
It can be supplied as Made-to-Order separately.



# 3-color display

## Digital Flow Switch for Water

### Series 25A-PF3W



#### How to Order

#### Remote sensor unit Output specification/Temperature sensor

Symbol	OUT1	OUT2	Temperature sensor
	Flow rate	Temperature	
1	Analog 1 to 5 V	—	None
2	Analog 4 to 20 mA	—	
1T	Analog 1 to 5 V	Analog 1 to 5 V	

\* To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol "1" or "1T").

#### Remote sensor unit/Unit printed on label

Symbol	Instantaneous flow rate	Temperature
Nil	L/min	°C
G*	L/min (gal/min)	°C/°F

\* Under the New Measurement Law, units other than SI (symbol: "Nil") cannot be used in Japan. Note) G: Made to Order  
Reference: 1 [L/min] ↔ 0.2642 [gal/min]  
1 [gal/min] ↔ 3.785 [L/min]  
°F = 9/5°C + 32

#### Remote sensor unit

25A - PF3W 5 04 [ ] - [ ] 03 - 1T [ ] - [ ] [ ] [ ]

#### Integrated display

25A - PF3W 7 04 [ ] - [ ] 03 - AT [ ] - M [ ] [ ]

Series compatible with secondary batteries

Type	Description
5	Remote sensor unit
7	Integrated display

#### Rated flow range (Flow range)

Symbol	Rated flow range
04	0.13 to 1.05 gal/min [0.5 to 4 L/min]
20	0.53 to 4.23 gal/min [2 to 16 L/min]
40	1.32 to 10.6 gal/min [5 to 40 L/min]
11	2.64 to 26.4 gal/min [10 to 100 L/min]

#### Thread type

Nil	Rc
N	NPT
F	G

#### Port size

Symbol	Port size	Rated flow range
03	3/8	04 20 40 11
04	1/2	— ● ● —
06	3/4	— — ● ●
10	1/1	— — — ●

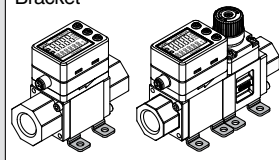
#### Calibration certificate (Only flow sensor)

Nil	None
A	With calibration certificate

\* The certificate is written in both English and Japanese. Integrated display type with temperature sensor can only display flow rate.

#### Bracket (Option)

Nil	None
R	Bracket



#### Flow adjustment valve

Symbol	With/without flow adjustment valve	Rated flow rate			
		04	20	40	11
Nil	None	●	●	●	●
S	Yes	●	●	●	—

100 L/min type is not available with flow adjustment valve.

#### Integrated display Output specification/ Temperature sensor

Symbol	OUT1	OUT2		Temperature sensor
	Flow rate	Flow rate	Temperature	
A	NPN	NPN	—	None
B	PNP	PNP	—	
C	NPN	Analog 1 to 5 V	—	
D	NPN	Analog 4 to 20 mA	—	
E	PNP	Analog 1 to 5 V	—	
F	PNP	Analog 4 to 20 mA	—	
G	NPN	External input <sup>Note 1)</sup>	—	
H	PNP	External input <sup>Note 1)</sup>	—	
AT	NPN	(NPN) <sup>Note 2)</sup>	NPN	With temperature sensor
BT	PNP	(PNP) <sup>Note 2)</sup>	PNP	
CT	NPN	(Analog 1 to 5 V) <sup>Note 2)</sup>	Analog 1 to 5 V	
DT	NPN	(Analog 4 to 20 mA) <sup>Note 2)</sup>	Analog 4 to 20 mA	
ET	PNP	(Analog 1 to 5 V) <sup>Note 2)</sup>	Analog 1 to 5 V	
FT	PNP	(Analog 4 to 20 mA) <sup>Note 2)</sup>	Analog 4 to 20 mA	

\* Specifications and dimensions for the 25A-series are the same as standard products.

Note 1) External input: The accumulated value, peak value, and bottom value can be reset.

Note 2) For units with temperature sensor, OUT2 can be set as either temperature output or flow rate output. Setting when shipped is for temperature output.

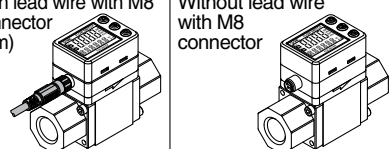
#### Integrated display/Unit specification

Symbol	Instantaneous flow rate	Accumulated flow	Temperature
M	L/min	L	°C
G	gal/min	gal	°C
F	gal/min	gal	°F
J	L/min	L	°F

\* Under the New Measurement Law, units other than SI (symbol: "M") cannot be used in Japan. Note) "G", "F", "J": Made to Order  
Reference: 1 [L/min] ↔ 0.2642 [gal/min]  
1 [gal/min] ↔ 3.785 [L/min]  
°F = 9/5°C + 32

#### Lead wire (Option)

Nil	N
With lead wire with M8 connector (3 m)	Without lead wire with M8 connector



\* Specifications and dimensions for the 25A-series are the same as standard products.

#### Options/Part No.

When optional parts are required separately, use the following part numbers to place an order.

Description	Part no	Qty.	Note
Bracket <sup>Note)</sup>	25A-ZS-40-K	1	For PF3W704/720/504/520 With 4 tapping screws (3 x 8)
	25A-ZS-40-L	1	For PF3W740/540 With 4 tapping screws (3 x 8)
	25A-ZS-40-M	1	For PF3W711/511 With 4 tapping screws (4 x 10)
Lead wire with M8 connector	25A-ZS-40-A	1	Lead wire length (3 m)

Note) For units with flow adjustment valve, 2 brackets are required.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches



# 3-color display

## Digital Flow Switch for PVC Piping

# Series 25A-PF3W



RoHS

### How to Order

#### Remote sensor unit Output specification

Symbol	OUT1
1	Analog 1 to 5 V
2	Analog 4 to 20 mA

\* To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol "1").

#### Remote sensor unit/Unit printed on label

Symbol	Instantaneous flow rate
Nil	L/min
G*	L/min (gal/min)

\* Under the New Measurement Law, units other than SI (symbol: "Nil") cannot be used in Japan.

Note) G: Made to Order

Reference: 1 [L/min] ↔ 0.2642 [gal/min]  
1 [gal/min] ↔ 3.785 [L/min]

#### Calibration certificate (Only flow sensor)

Nil	None
A	With calibration certificate

\* The certificate is written in both English and Japanese.



#### Remote sensor unit

#### Integrated display

Series compatible with secondary batteries



25A - PF3W 5 11 - U 25 - 1 [ ] [ ] [ ] [ ]  
25A - PF3W 7 11 - U 25 - A [ ] [ ] [ ] [ ]

#### Type

5	Remote sensor unit
7	Integrated display

#### Rated flow range (Flow range)

Symbol	Rated flow range
11	2.64 to 26.4 gal/min (10 to 100 L/min)

#### Connection type

U	PVC pipe
---	----------

#### PVC pipe O.D.

Symbol	Port size	Pipe O.D.*
25	25A	32 mm

\* JIS K6742 equivalent

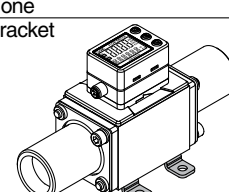
#### Integrated display Output specification

Symbol	OUT1	OUT2
A	NPN	NPN
B	PNP	PNP
C	NPN	Analog 1 to 5 V
D	NPN	Analog 4 to 20 mA
E	PNP	Analog 1 to 5 V
F	PNP	Analog 4 to 20 mA
G	NPN	External input
H	PNP	External input

External input: The accumulated value, peak value, and bottom value can be reset.

#### Bracket (Option)

Nil	None
R	Bracket



#### Integrated display/Unit specification

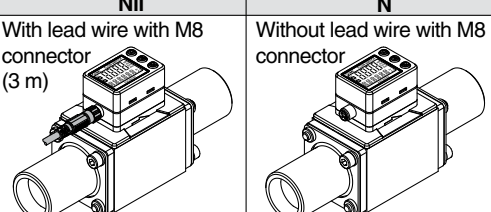
Symbol	Instantaneous flow rate	Accumulated flow
M	L/min	L
G	gal/min	gal

\* Under the New Measurement Law, units other than SI (symbol: "M") cannot be used in Japan. Note) "G": Made to Order

Reference: 1 [L/min] ↔ 0.2642 [gal/min]  
1 [gal/min] ↔ 3.785 [L/min]

#### Lead wire

Nil	N
With lead wire with M8 connector (3 m)	Without lead wire with M8 connector



\* Specifications and dimensions for the 25A-series are the same as standard products.

\* Specifications and dimensions for the 25A-series are the same as standard products.

### Options/Part No.

When optional parts are required separately, use the following part numbers to place an order.

Description	Part no.	Qty.	Note
Bracket	25A-ZS-40-M	1	For PF3W711/511 With 4 tapping screws (4 x 10)
Lead wire with M8 connector	25A-ZS-40-A	1	Lead wire length (3 m)

# Direct Operated 2 Port Solenoid Valve

 For Air Single Unit



## Series 25A-VX21/22/23

### How to Order (Single Unit)

25A - VX2 1 0 A A

Series compatible with secondary batteries

Fluid

0 For air



#### Common Specifications

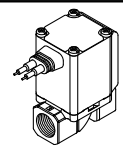
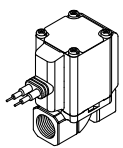
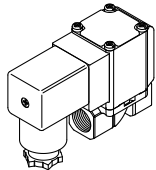
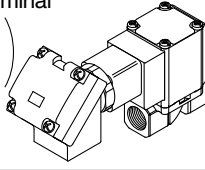
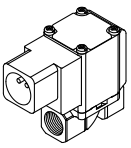
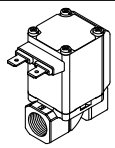
Valve type	N.C.
Seal material	NBR
Coil insulation type	Class B
Thread type	Rc

#### Size/Valve type

#### Body material/Port size/Orifice diameter

Symbol	Size	Valve type	Symbol	Body material	Port size	Orifice diameter			
1	Size 1	Single unit N.C.	A	Aluminum	1/8	2			
			B			3			
			C			5			
			D			1/4	2		
			E				3		
			F				5		
			H	Resin	2				
			J		3				
			K		5				
			L		2				
			M	3					
			N	5					
			2	Size 2	Single unit N.C.	A	Aluminum	1/4	4
						B			7
D	3/8	4							
E		7							
H	Resin	ø8 One-touch fitting				4			
J		7							
L		4							
M	ø10 One-touch fitting	7							
3	Size 3	Single unit N.C.				A	Aluminum	1/4	5
						B			8
			C	10					
			D	3/8	5				
			E		8				
			F		10				
			G		1/2	10			
			H	Resin		5			
			J		ø10 One-touch fitting	8			
			K		10				
			L		5				
			M	ø12 One-touch fitting	8				
			N	10					

#### Voltage/Electrical entry

Symbol	Voltage	Electrical entry
A	24 VDC	Grommet 
B	100 VAC	Grommet (With surge voltage suppressor) 
C	110 VAC	
D	200 VAC	
E	230 VAC	
F	24 VDC	DIN terminal (With surge voltage suppressor) 
G	24 VDC	
H	100 VAC	
J	110 VAC	
K	200 VAC	
L	230 VAC	Conduit terminal (With surge voltage suppressor) 
M	24 VDC	
N	100 VAC	
P	110 VAC	
Q	200 VAC	Conduit (With surge voltage suppressor) 
R	230 VAC	
S	24 VDC	
T	100 VAC	
U	110 VAC	Faston terminal 
V	200 VAC	
W	230 VAC	
Y	24 VDC	Other voltages and electrical options
Z		

For other special options, refer to the standard products.

Special voltage	48 VAC
	220 VAC
	240 VAC
	12 VDC
DIN terminal with light	
Conduit terminal with light	
Low concentration ozone resistant (Seal material: FKM)	
Oil-free	
G thread	
NPT thread	



\* Specifications and dimensions for the 25A-series are the same as standard products.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

Electric Actuators


Auto Switches



# Direct Operated 2 Port Solenoid Valve

 For Water **Single Unit**

 For Oil **Single Unit**

 For Medium Vacuum **Single Unit**

## Series 25A-VX21/22/23



### How to Order (Single Unit)

**25A - VX2** **1** **4** **A** **A**

Series compatible with secondary batteries

Fluid

2	For water
3	For oil
4	For medium vacuum

● Size/Valve type

Symbol	Size	Valve type
1	Size 1	Single unit N.C.
2	Size 2	Single unit N.C.
3	Size 3	Single unit N.C.

● Body material/Port size/Orifice diameter

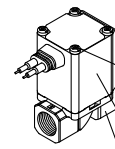
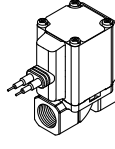
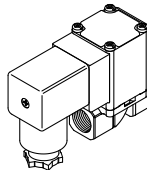
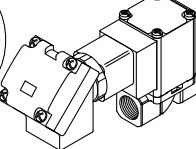
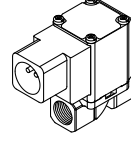
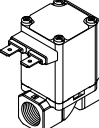
Symbol	Body material	Port size	Orifice diameter	
1	Stainless steel	1/8	H	2
			J	3
			K	5
		1/4	L	2
			M	3
			N	5
2	Stainless steel	1/4	H	4
			J	7
		3/8	L	4
			M	7
			P	7
3	Stainless steel	1/4	H	5
			J	8
			K	10
			L	5
		3/8	M	8
			N	10
			P	10
		1/2	M	10
			P	10



### Common Specifications

Valve type	N.C.
Seal material	FKM
Coil insulation type	Class B
Thread type	Rc

### ● Voltage/Electrical entry

Symbol	Voltage	Electrical entry
A	24 VDC	Grommet  Coil mounting screw: made of stainless steel or electroless nickel plating Outer package of coil: Resin Body: Aluminum or Resin
B	100 VAC	Grommet (With surge voltage suppressor) 
C	110 VAC	
D	200 VAC	
E	230 VAC	
F	24 VDC	
G	24 VDC	DIN terminal (With surge voltage suppressor) 
H	100 VAC	
J	110 VAC	
K	200 VAC	
L	230 VAC	
M	24 VDC	
N	100 VAC	Conduit terminal (With surge voltage suppressor) 
P	110 VAC	
Q	200 VAC	
R	230 VAC	
S	24 VDC	
T	100 VAC	Conduit (With surge voltage suppressor) 
U	110 VAC	
V	200 VAC	
W	230 VAC	
Y	24 VDC	Faston terminal 
Z	Other voltages and electrical options	

\* Specifications and dimensions for the 25A-series are the same as standard products.

For other special options, refer to the standard products.

Special voltage	48 VAC
	220 VAC
	240 VAC
	12 VDC
DIN terminal with light	
Conduit terminal with light	
G thread	
NPT thread	
Bracket interchangeable with old type	

Auto Switches	Electric Actuators	Fluid Control Equipment	Detection Switches	Fittings/Flow Control Equipment	Air Filters/Pressure Control Equipment	Clean Air Filters	Air Preparation Equipment	Vacuum Equipment	Air Grippers	Rotary Actuators	Related Products	Air Cylinders	Directional Control Valves
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# Electric Actuator/Slider Type Ball Screw Drive

Step Motor (Servo/24 VDC)

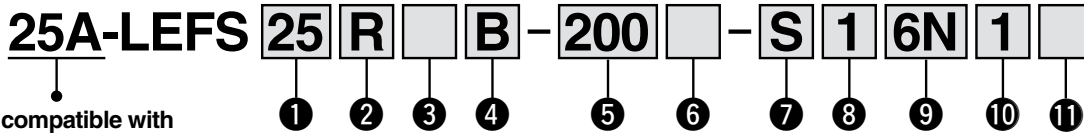
Servo Motor (24 VDC)

## Series 25A-LEFS

### LEFS16, 25, 32, 40



### How to Order



Series compatible with secondary batteries

#### ① Size

16
25
32
40

#### ② Motor mounting position

Nil	In-line
R	Right side parallel
L	Left side parallel

#### ③ Motor type

Symbol	Type	Applicable size				Compatible controllers/driver
		LEFS16	LEFS25	LEFS32	LEFS40	
Nil	Step motor (Servo/24 VDC)	●	●	●	●	LECP6 LECP1 LECPA LECPMJ
A	Servo motor (24 VDC)	●	●	—	—	LECA6

#### ④ Lead [mm]

Symbol	LEFS16	LEFS25	LEFS32	LEFS40
A	10	12	16	20
B	5	6	8	10

#### ⑤ Stroke [mm]

50	50
to	to
1000	1000

\* Refer to the applicable stroke table.

### ⚠ Caution

#### [CE-compliant products]

① EMC compliance was tested by combining the electric actuator LEF series and the controller LEC series.

The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore conformity to the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result it is necessary for the customer to verify conformity to the EMC directive for the machinery and equipment as a whole.

② For the servo motor (24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA).

Refer to the **WEB catalog** for the noise filter set. Refer to the LECA Operation Manual for installation.

#### [UL-compliant products]

When conformity to UL is required, the electric actuator and controller/driver should be used with a UL1310 Class 2 power supply.

### Applicable stroke table

Model	Stroke [mm]	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	Manufacturable stroke range [mm]
		●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—	
LEFS16	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—	50 to 500
LEFS25	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	50 to 600
LEFS32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	—	50 to 800
LEFS40	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	150 to 1000

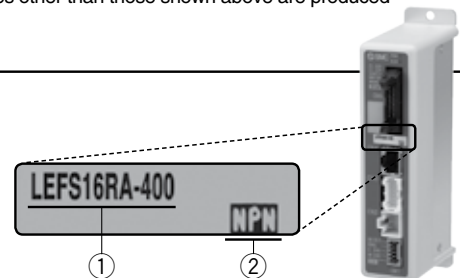
\* Strokes are manufacturable in 1 mm increments. Refer to the manufacturable stroke range. However, strokes other than those shown above are produced as special orders. Consult with SMC for lead times and prices.

### The actuator and controller/driver are sold as a package.

Confirm that the combination of the controller/driver and the actuator is correct.

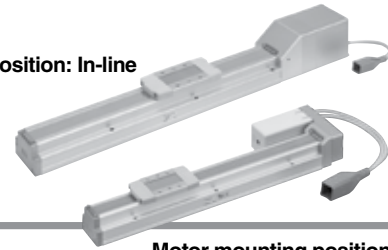
#### <Check the following before use.>

- Check the actuator label for model number (after "25A-"). This matches the controller/driver.
- Check Parallel I/O configuration matches (NPN or PNP).



\* Refer to the operation manual for using the products. Please download it via our website, <http://www.smcworld.com>

Motor mounting position: In-line



Motor mounting position:  
Right side parallel

**6 Motor option**

Nil	Without option
B	With lock

**7 Actuator cable type\*1**

Nil	Without cable
S	Standard cable*2
R	Robotic cable (Flexible cable)

- \* 1 The standard cable should be used on fixed parts. For using on moving parts, select the robotic cable.
- \* 2 Only available for the motor type "Step motor".

**8 Actuator cable length [m]**

Nil	Without cable
1	1.5
3	3
5	5
8	8*
A	10*
B	15*
C	20*

\* Produced upon receipt of order (Robotic cable only)

**9 Controller/Driver type\*1**

Nil	Without controller/driver	
6N	LECP6/LECA6 (Step data input type)	NPN
6P		PNP
1N	LECP1*2 (Programless type)	NPN
1P		PNP
MJ	LECPMJ (CC-Link direct input type)	—
AN	LECPA*2 (Pulse input type)	NPN
AP		PNP

- \* 1 For details about controllers/driver and compatible motors, refer to the compatible controllers/driver below.
- \* 2 Only available for the motor type "Step motor".

**10 I/O cable length [m]\*1, Communication plug**

Nil	Without cable (Without communication plug connector)*3
1	1.5
3	3*2
5	5*2
S	Straight type communication plug connector*3
T	T-branch type communication plug connector*3

- \* 1 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. When the I/O cable is required, order it separately.
- \* 2 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables usable with open collector.
- \* 3 When "CC-Link direct input type" is selected for controller/driver types, I/O cable is not included. Only "Nil", "S" or "T" can be selected.

**11 Controller/Driver mounting**

Nil	Screw mounting
D	DIN rail mounting*

\* DIN rail is not included. Order it separately.

\* Specifications and dimensions for the 25A-series are the same as standard products.

**Compatible Controllers/Driver**

Type	Step data input type	Step data input type	Programless type	CC-Link direct input type	Pulse input type	
Series	LECP6		LECA6	LECP1	LECPMJ	LECPA
Features	Value (Step data) input Standard controller		Capable of setting up operation (step data) without using a PC or teaching box	CC-Link direct input	Operation by pulse signals	
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)	Step motor (Servo/24 VDC)			
Maximum number of step data	64 points		14 points	64 points	—	
Power supply voltage	24 VDC					

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

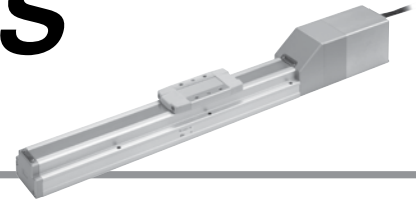
# Electric Actuator/Slider Type Ball Screw Drive

AC Servo Motor



# Series 25A-LEFS

## LEFS25, 32, 40



### How to Order

**25A-LEFS** **32** **R** **S3** **B** - **200** **S** **2** **A2**

Series compatible with secondary batteries

#### 1 Size

25
32
40

#### 2 Motor mounting position

Nil	In-line
R	Right side parallel
L	Left side parallel

#### 3 Motor type

Symbol	Type	Output [W]	Actuator size	Compatible drivers
S2*1	AC servo motor (Incremental encoder)	100	25	LECSA□-S1
S3		200	32	LECSA□-S3
S4		400	40	LECSA2-S4
S6*1	AC servo motor (Absolute encoder)	100	25	LECSB□-S5
S7				LECSB□-S7
		200	32	LECSB□-S5
LECSB□-S7				
S8	400	40	LECSB2-S8	
			LECSB2-S7	

\*1 For motor type "S2" and "S6", the compatible driver part number suffixes are "S1" and "S5" respectively.  
\*2 For details about the driver, refer to the **WEB catalog**.

#### 4 Lead [mm]

Symbol	LEFS25	LEFS32	LEFS40
A	12	16	20
B	6	8	10

#### 5 Stroke [mm]

50	50
to	to
1000	1000

\* Refer to the applicable stroke table.

#### 6 Motor option

Nil	Without option
B	With lock

#### 9 Driver type

	Compatible drivers	Power supply voltage (V)	Size		
			25	32	40
Nil	Without driver	—	●	●	●
A1	LECSA1-S□	100 to 120	●	●	—
A2	LECSA2-S□	200 to 230	●	●	—
B1	LECSB1-S□	100 to 120	●	●	—
B2	LECSB2-S□	200 to 230	●	●	●
C1	LECS1-S□	100 to 120	●	●	—
C2	LECS2-S□	200 to 230	●	●	—
S1	LECS1-S□	100 to 120	●	●	—
S2	LECS2-S□	200 to 230	●	●	●

\* When the driver type is selected, the cable is included. Select cable type and cable length.  
Example) S2S2: Standard cable (2 m) + Driver (LECS2)  
S2 : Standard cable (2 m)  
Nil : Without cable and driver

#### 10 I/O connector

Nil	Without connector
H	With connector

#### 7 Cable type \*1, \*2

Nil	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

\*1 The motor and encoder cables are included. (The lock cable is also included when the motor with lock option is selected.)  
\*2 Standard cable entry direction is  
· Parallel: (A) Axis side  
· In-line: (B) Counter axis side

#### 8 Cable length \*[m]

Nil	Without cable
2	2
5	5
A	10

\* The length of the encoder, motor and lock cables are the same.

#### Applicable stroke table

Model	Stroke [mm]													Manufacturable stroke range [mm]								
	50	100	150	200	250	300	350	400	450	500	550	600	650		700	750	800	850	900	950	1000	
LEFS25	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	50 to 600
LEFS32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	50 to 800
LEFS40	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	150 to 1000

\* Strokes are manufacturable in 1 mm increments. Refer to the manufacturable stroke range. However, strokes other than those shown above are produced as special orders. Consult with SMC for lead times and prices.

\* Specifications and dimensions for the 25A-series are the same as standard products.

#### Compatible Drivers

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III type
Series	LECSA	LECSB	LECS	LECS2
Number of point tables	Up to 7	—	Up to 255 (2 stations occupied)	—
Pulse input	○	○	—	—
Applicable network	—	—	CC-Link	SSCNET III
Control encoder	Incremental 17-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication
Power supply voltage (V)	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)			

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

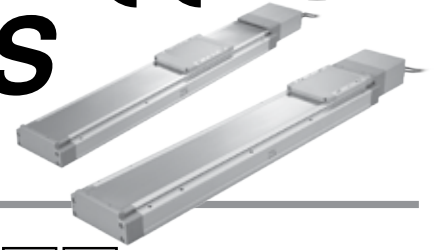


# Electric Actuator/High Rigidity Slider Type Ball Screw Drive

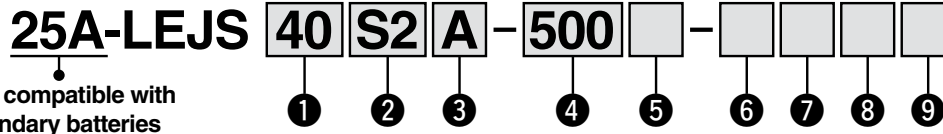
AC Servo Motor



## Series 25A-LEJS LEJS40, 63



### How to Order



#### 1 Size

40
63

#### 2 Motor type \*1

Symbol	Type	Output [W]	Actuator size	Compatible drivers *2
S2	AC servo motor (Incremental encoder)	100	40	LECSA□-S1
S3	AC servo motor (Incremental encoder)	200	63	LECSA□-S3
S6	AC servo motor (Absolute encoder)	100	40	LECSB□-S5 LECSC□-S5 LECSC□-S5
S7	AC servo motor (Absolute encoder)	200	63	LECSB□-S7 LECSC□-S7 LECSC□-S7

\*1 For motor type "S2" and "S6", the compatible driver part number suffixes are "S1" and "S5" respectively.

\*2 For details about the driver, refer to the WEB catalog.

#### 3 Lead [mm]

Symbol	LEJS40	LEJS63
A	16	20
B	8	10

#### 4 Stroke [mm] \*3

200
to
1500

\*3 Refer to the table below for details.

#### 5 Motor option

Nil	Without option
B	With lock

#### 6 Cable type \*5, \*6, \*7

Nil	Without cable
S	Standard cable
R	Robotic cable (Flexible cable)

\*6 The motor and encoder cables are included. (The lock cable is included when the motor with lock option is selected.)

\*7 Standard cable entry is "(A) Axis side".

#### 7 Cable length [m] \*5, \*8

Nil	Without cable
2	2
5	5
A	10

\*8 The length of the motor, encoder and lock cables are the same.

#### 8 Driver type \*5

	Compatible drivers	Power supply voltage (V)
Nil	Without driver	—
A1	LECSA1-S□	100 to 120
A2	LECSA2-S□	200 to 230
B1	LECSB1-S□	100 to 120
B2	LECSB2-S□	200 to 230
C1	LECSC1-S□	100 to 120
C2	LECSC2-S□	200 to 230
S1	LECSC1-S□	100 to 120
S2	LECSC2-S□	200 to 230

#### 9 I/O connector

Nil	Without connector
H	With connector

\*5 When the driver type is selected, the cable is included. Select cable type and cable length.

Example)  
S2S2: Standard cable (2 m) + Driver (LECSC2)  
S2 : Standard cable (2 m)  
Nil : Without cable and driver

#### Applicable stroke table \*4

●Standard ○Produced upon receipt of order

Model	Stroke [mm]	200	300	400	500	600	700	800	900	1000	1200	1500
LEJS40		●	●	○	●	●	○	●	○	○	○	—
LEJS63		—	●	○	●	●	○	●	○	●	○	○

\*4 Consult with SMC as all non-standard and non-made-to-order strokes are produced as special orders.

Solid state auto switches should be ordered separately. For details about auto switches, refer to page 164.

#### Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900  
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

#### Compatible Drivers

\*Specifications and dimensions for the 25A-series are the same as standard products.

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III type
Series	LECSA	LECSB	LECSC	LECSC
Number of point tables	Up to 7	—	Up to 255	—
Pulse input	○	○	—	—
Applicable network	—	—	CC-Link	SSCNET III
Control encoder	Incremental 17-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder
Communication function	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication
Power supply voltage (V)	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)			

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.



Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches



# Electric Actuator/Rod Type

Step Motor (Servo/24 VDC) Servo Motor (24 VDC)

## Series 25A-LEY

LEY16, 25, 32, 40



### How to Order

**25A-LEY** **16** **B** - **100** **C** - **S** **1** **6N** **1**

Series compatible with secondary batteries

**1 Size**

16
25
32
40

**2 Motor mounting position**

Nil	Top mounting
R	Right side parallel
L	Left side parallel
D	In-line

**3 Motor type**

Symbol	Type	Size			Compatible controllers/driver
		LEY16	LEY25	LEY32/40	
Nil	Step motor (Servo/24 VDC)	●	●	●	LECP6 LECP1 LECPA LECPMJ
A	Servo motor (24 VDC)	●	●	—	LECA6

**4 Lead [mm]**

Symbol	LEY16	LEY25	LEY32/40
A	10	12	16
B	5	6	8
C	2.5	3	4

**6 Motor option**

C	With motor cover
W	With lock/motor cover

\* When "With lock/motor cover" is selected for the top mounting and right/left side parallel types, the motor body will stick out of the end of the body for size 16 with strokes 30 or less. Check for interference with workpieces before selecting a model.

#### Mounting Bracket Part No. for Series 25A-

Applicable size	Foot *1	Flange	Double clevis
16	25-LEY-L016	25-LEY-F016	25-LEY-D016
25	25-LEY-L025	25-LEY-F025	25-LEY-D025
32, 40	25-LEY-L032	25-LEY-F032	25-LEY-D032
Surface treatment	RAYDENT®	RAYDENT®	Coating (Size 16: Electroless nickel plating)

\*1 When ordering foot brackets, order 2 pieces per actuator.

\*2 Parts belonging to each bracket are as follows.

Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

\* Applicable stroke table

Model	Stroke [mm]	Standard											Manufacturable stroke range [mm]
		30	50	100	150	200	250	300	350	400	450	500	
LEY16		●	●	●	●	●	●	●	—	—	—	—	10 to 300
LEY25		●	●	●	●	●	●	●	●	—	—	—	15 to 400
LEY32/40		●	●	●	●	●	●	●	●	●	●	●	20 to 500

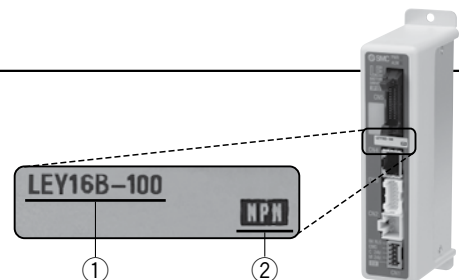
\* Consult with SMC for non-standard strokes as they are produced as special orders.

#### The actuator and controller/driver are sold as a package.

Confirm that the combination of the controller/driver and the actuator is correct.

<Check the following before use.>

- Check the actuator label for model number (after "25A-"). This matches the controller/driver.
- Check Parallel I/O configuration matches (NPN or PNP)



#### Caution

##### [CE-compliant products]

① EMC compliance was tested by combining the electric actuator LEY series and the controller LEC series.

The EMC depends on the configuration of the customer's control panel and the relationship with other electrical equipment and wiring. Therefore conformity to the EMC directive cannot be certified for SMC components incorporated into the customer's equipment under actual operating conditions. As a result it is necessary for the customer to verify conformity to the EMC directive for the machinery and equipment as a whole.

② For the servo motor (24 VDC) specification, EMC compliance was tested by installing a noise filter set (LEC-NFA). Refer to the **WEB catalog** for the noise filter set. Refer to the LECA Operation Manual for installation.

##### [UL-compliant products]

When conformity to UL is required, the electric actuator and controller/driver should be used with a UL1310 Class 2 power supply.

**Solid state auto switches should be ordered separately. For details about auto switches, refer to page 164.**

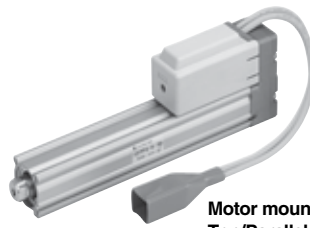
#### Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900  
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

\* Refer to the operation manual for using the products. Please download it via our website, <http://www.smcworld.com>



# Electric Actuator/Rod Type *Series 25A-LEY*



Motor mounting position:  
Top/Parallel



Motor mounting position:  
In-line

## 8 Mounting <sup>\*1</sup>

Symbol	Type	Motor mounting position	
		Top/Parallel	In-line
Nil	Ends tapped (Standard) <sup>*2</sup>	●	●
U	Body bottom tapped	●	●
L	Foot	●	—
F	Rod flange <sup>*2</sup>	●	●
G	Head flange <sup>*2</sup>	● <sup>*4</sup>	—
D	Double clevis <sup>*3</sup>	●	—

\*1 Mounting bracket is shipped together, (but not assembled).

\*2 For horizontal cantilever mounting with the rod flange, head flange and ends tapped, use the actuator within the following stroke range.

- LEY25: 200 or less
- LEY32/40: 100 or less

\*3 For mounting with the double clevis, use the actuator within the following stroke range.

- LEY16: 100 or less
- LEY25: 200 or less
- LEY32/40: 200 or less

\*4 Head flange is not available for the LEY32/40.

## 13 Controller/Driver mounting

Nil	Screw mounting
D	DIN rail mounting <sup>*1</sup>

\*1 DIN rail is not included. Order it separately.

## 9 Actuator cable type <sup>\*1</sup>

Nil	Without cable
S	Standard cable <sup>*2</sup>
R	Robotic cable (Flexible cable)

\*1 The standard cable should be used on fixed parts. For using on moving parts, select the robotic cable.

\*2 Only available for the motor type "Step motor".

## 11 Controller/Driver type <sup>\*1</sup>

Nil	Without controller/driver	
6N	LECP6/LECA6 (Step data input type)	NPN
6P		PNP
1N	LECP1 <sup>*2</sup> (Programless type)	NPN
1P		PNP
MJ	LECPMJ (CC-Link direct input type)	—
AN	LECPA <sup>*2</sup> (Pulse input type)	NPN
AP		PNP

\*1 For details about controllers/driver and compatible motors, refer to the compatible controllers/driver below.

\*2 Only available for the motor type "Step motor".

## 10 Actuator cable length [m]

Nil	Without cable
1	1.5
3	3
5	5
8	8 <sup>*</sup>
A	10 <sup>*</sup>
B	15 <sup>*</sup>
C	20 <sup>*</sup>

\* Produced upon receipt of order (Robotic cable only)

## 12 I/O cable length [m]<sup>\*1</sup>, Communication plug

Nil	Without cable (Without communication plug connector <sup>*3</sup> )
1	1.5
3	3 <sup>*2</sup>
5	5 <sup>*2</sup>
S	Straight type communication plug connector <sup>*3</sup>
T	T-branch type communication plug connector <sup>*3</sup>

\*1 When "Without controller/driver" is selected for controller/driver types, I/O cable cannot be selected. Refer to the catalog CAT. E102 if I/O cable is required.

\*2 When "Pulse input type" is selected for controller/driver types, pulse input usable only with differential. Only 1.5 m cables usable with open collector.

\*3 When "CC-Link direct input type" is selected for controller/driver types, I/O cable is not included. Only "Nil", "S" or "T" can be selected.

## Compatible Controllers/Driver

Type	Step data input type	Step data input type	Programless type	CC-Link direct input type	Pulse input type
Series	LECP6	LECA6	LECP1	LECPMJ	LECPA
Features	Value (Step data) input Standard controller		Capable of setting up operation (step data) without using a PC or teaching box	CC-Link direct input	Operation by pulse signals
Compatible motor	Step motor (Servo/24 VDC)	Servo motor (24 VDC)	Step motor (Servo/24 VDC)		
Maximum number of step data	64 points		14 points	64 points	—
Power supply voltage	24 VDC				

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

Directional Control Valves  
Air Cylinders  
Related Products  
Rotary Actuators  
Air Grippers  
Vacuum Equipment  
Air Preparation Equipment  
Clean Air Filters  
Air Filters/Pressure Control Equipment  
Fittings/Flow Control Equipment  
Detection Switches  
Fluid Control Equipment  
Electric Actuators  
Auto Switches

# Electric Actuator/Rod Type

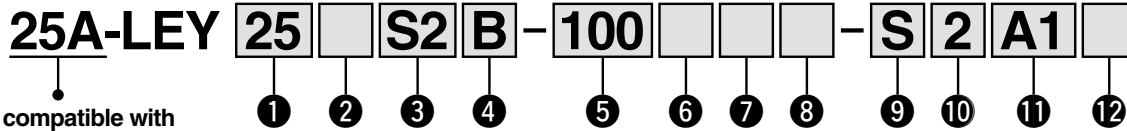
AC Servo Motor

## Series 25A-LEY



LEY25, 32 Size 25, 32

### How to Order



Series compatible with secondary batteries

#### 1 Size

25
32

#### 2 Motor mounting position

Nil	Top mounting
R	Right side parallel
L	Left side parallel
D	In-line

#### 3 Motor type \*1

Symbol	Type	Output [W]	Actuator size	Compatible drivers *2
S2	AC servo motor (Incremental encoder)	100	25	LECSA□-S1
S3	AC servo motor (Incremental encoder)	200	32	LECSA□-S3
S6	AC servo motor (Absolute encoder)	100	25	LECSB□-S5 LECSC□-S5 LECSS□-S5
S7	AC servo motor (Absolute encoder)	200	32	LECSB□-S7 LECSC□-S7 LECSS□-S7

\* 1 For motor type "S2" and "S6", the compatible driver part number suffixes are "S1" and "S5" respectively.

\* 2 For details about the driver, refer to the **WEB catalog**.

#### 4 Lead [mm]

Symbol	LEY25	LEY32*
A	12	16 (20)
B	6	8 (10)
C	3	4 (5)

\* The values shown in ( ) are the lead for size 32 top mounting, right/left side parallel types. (Equivalent lead which includes the pulley ratio [1.25:1])

#### 5 Stroke [mm]

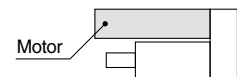
30	30
to	to
500	500

\* Refer to the table below for details.

#### 6 Motor option

Nil	Without option
B	With lock *

\* When "With lock" is selected for the top mounting and right/left side parallel types, the motor body will stick out of the end of the body for size 25 with strokes 30 or less. Check for interference with workpieces before selecting a model.



#### 7 Rod end thread

Nil	Female rod end
M	Male rod end (1 rod end nut is included.)

#### 8 Mounting \*1

Symbol	Type	Motor mounting position	
		Top/Parallel	In-line
Nil	Ends tapped (Standard) *2	●	●
U	Body bottom tapped	●	●
L	Foot	●	—
F	Rod flange *2	●	●
G	Head flange *2	●*4	—
D	Double clevis *3	●	—

\*1 Mounting bracket is shipped together, (but not assembled).

\*2 For horizontal cantilever mounting with the rod flange, head flange and ends tapped, use the actuator within the following stroke range.

· LEY25: 200 or less · LEY32: 100 or less

\*3 For mounting with the double clevis, use the actuator within the following stroke range.

· LEY25: 200 or less · LEY32: 200 or less

\*4 Head flange is not available for the LEY32.

#### Mounting Bracket Part No. for Series 25A-

Applicable size	Foot*1	Flange	Double clevis
25	25-LEY-L025	25-LEY-F025	25-LEY-D025
32	25-LEY-L032	25-LEY-F032	25-LEY-D032
Surface treatment	RAYDENT®	RAYDENT®	Coating (Size 16: Electroless nickel plating)

\*1 When ordering foot brackets, order 2 pieces per actuator.

\*2 Parts belonging to each bracket are as follows.

Foot, Flange: Body mounting bolt, Double clevis: Clevis pin, Type C retaining ring for axis, Body mounting bolt

\* Applicable stroke table

Model	Stroke [mm]	Standard										Manufacturable stroke range [mm]	
		30	50	100	150	200	250	300	350	400	450		500
LEY25		●	●	●	●	●	●	●	●	●	—	—	15 to 400
LEY32		●	●	●	●	●	●	●	●	●	●	●	20 to 500

\* Consult with SMC for non-standard strokes as they are produced as special orders.

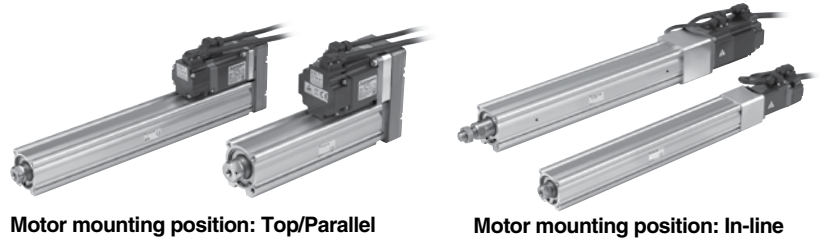
**Solid state auto switches should be ordered separately. For details about auto switches, refer to page 164.**

#### Applicable auto switches

D-M9N(V)-900, D-M9P(V)-900, D-M9B(V)-900  
D-M9NW(V)-900, D-M9PW(V)-900, D-M9BW(V)-900

# Electric Actuator/Rod Type **Series 25A-LEY**

Size **25, 32**



Motor mounting position: Top/Parallel

Motor mounting position: In-line

## 9 Cable type \*

<b>Nil</b>	Without cable
<b>S</b>	Standard cable
<b>R</b>	Robotic cable (Flexible cable)

\* The motor and encoder cables are included.  
(The lock cable is also included when the motor with lock option is selected.)

\* Standard cable entry direction is  
· Top/Parallel: (A) Axis side  
· In-line: (B) Counter axis side

## 10 Cable length \* [m]

<b>Nil</b>	Without cable
<b>2</b>	2
<b>5</b>	5
<b>A</b>	10

\* The length of the encoder, motor and lock cables are the same.

## 11 Driver type \*

	Compatible drivers	Power supply voltage (V)
<b>Nil</b>	Without driver	—
<b>A1</b>	LECSA1-S □	100 to 120
<b>A2</b>	LECSA2-S □	200 to 230
<b>B1</b>	LECSB1-S □	100 to 120
<b>B2</b>	LECSB2-S □	200 to 230
<b>C1</b>	LECSC1-S □	100 to 120
<b>C2</b>	LECSC2-S □	200 to 230
<b>S1</b>	LECSS1-S □	100 to 120
<b>S2</b>	LECSS2-S □	200 to 230





\* When the driver type is selected, the cable is included. Select cable type and cable length.  
Example)  
S2S2: Standard cable (2 m) + Driver (LECSS2)  
S2 : Standard cable (2 m)  
Nil : Without cable and driver

## 12 I/O connector

<b>Nil</b>	Without connector
<b>H</b>	With connector

\* Specifications and dimensions for the 25A-series are the same as standard products.

## Compatible Drivers

Driver type	Pulse input type/ Positioning type	Pulse input type	CC-Link direct input type	SSCNET III type
				
<b>Series</b>	<b>LECSA</b>	<b>LECSB</b>	<b>LECSC</b>	<b>LECSS</b>
<b>Number of point tables</b>	Up to 7	—	Up to 255 (2 stations occupied)	—
<b>Pulse input</b>	○	○	—	—
<b>Applicable network</b>	—	—	CC-Link	SSCNET III
<b>Control encoder</b>	Incremental 17-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder	Absolute 18-bit encoder
<b>Communication function</b>	USB communication	USB communication, RS422 communication	USB communication, RS422 communication	USB communication
<b>Power supply voltage (V)</b>	100 to 120 VAC (50/60 Hz) 200 to 230 VAC (50/60 Hz)			

\* Copper and zinc materials are used for the motors, cables, controllers/drivers.

# Series 25A- Applicable Auto Switches

## Applicable Cylinder Series

Auto switches							Cylinders																		
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Electrical entry direction	Auto switch model	Lead wire length [m]				Pre-wired connector	CDJ2	CDM2	CDG1	MDB	CDA2	CDS2	CDU	CDUK	CDQS					
							0.5 Nil	1 M	3 L	5 Z											SDPC	ø10, ø16	ø20 to ø40	ø20 to ø63	ø80, ø100
Reed auto switch	—	Grommet	None	2-wire	In-line	D-A90-900	—	—	●	—	—	●	●	●	—	—	●	●	●	●	●				
			—	—	—	D-Z80-900	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—				
	—	Grommet	Yes	3-wire (NPN equiv.)	In-line	D-E76A	●	—	●	—	—	—	—	—	—	—	—	—	—	—	—				
			None	2-wire		D-E73A	●	—	●	—	—	—	—	—	—	—	—	—	—	—	—				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	In-line	D-M9N-900	●	●	●	○	—	●	●	●	—	●	●	●	●	●	●				
						D-M9P-900	●	●	●	○	—	●	●	●	—	●	●	●	—	●	●	●	●	●	
						D-M9B-900	●	●	●	○	—	●	●	●	—	●	●	●	—	●	●	●	●	●	●
						D-M9NV-900	●	●	●	○	—	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-M9PV-900	●	●	●	○	—	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-M9BV-900	●	●	●	○	—	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-M9NW-900	●	●	●	○	—	●	●	●	—	●	●	●	—	●	●	●	●	●	●
						D-M9PW-900	●	●	●	○	—	●	●	●	—	●	●	●	—	●	●	●	●	●	●
						D-M9BW-900	●	●	●	○	○	●	●	●	—	●	●	●	—	●	●	●	●	●	●
						D-M9NWV-900	●	●	●	○	—	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-M9PWV-900	●	●	●	○	—	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-M9BWV-900	●	●	●	○	○	—	—	—	—	●	●	●	—	●	●	●	●	●	●
						D-Y59A-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7P-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y59B-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y69A-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7PV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y69B-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7NW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7PW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7BW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7NWV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7PWV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
						D-Y7BWV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	D-G59-900	●	—	●	○	—	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-G5P-900	●	—	●	○	—	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-K59-900	●	—	●	○	—	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-G59W-900	●	—	●	○	—	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-G5PW-900	●	—	●	○	—	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-K59W-900	●	—	●	○	○	—	—	—	—	—	—	—	●	—	●	—	—	—	—					
	D-F79-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7P-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-J79-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7NV-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7PV-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7BV-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F79W-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7PW-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-J79W-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7NWV-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	D-F7BWV-900	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					

\* Solid state auto switches marked "○" are produced upon receipt of order.

### Ordering the Auto Switches

Please be aware that the order part numbers for the cylinder mounted and individual auto switches are different.

(Example) Part number for ordering D-M9BWL-900:

- Cylinder mounted type: 25A-CDJ2L16-60-M9BWL  
(Omit the first "D-" and the last "-900" or "-901".)

- Individual auto switch: D-M9BWL-900

(Place the order with the part number for auto switch shown in the table above.)

\* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW  
1 m..... M (Example) M9NWM  
3 m..... L (Example) M9NWL  
5 m..... Z (Example) M9NWZ



# Series 25A-

## Applicable Rotary Actuator, Air Gripper Series

Type	Special function	Electrical entry	Indicator light	Auto switches					Rotary actuators					Air grippers															
				Wiring (Output)	Electrical entry direction	Auto switch model	Lead wire length [m]				Pre-wired connector	MSQ		MDSUB		MHZ2	MHZL2	MHZJ2	MHL2	MHF2	MHS3	MHSJ3	MHY2						
							0.5 Nil	1 M	3 L	5 Z		10 to 200	1, 3	7, 20	10 to 40	10 to 25	10 to 25	10 to 40	8 to 20	16 to 32	16 to 32	16 to 25							
Reed auto switch	—	Grommet	None	2-wire	In-line	D-A90-900	—	—	●	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—				
Solid state auto switch	Diagnostic indication (2-color display)	Grommet	Yes	3-wire (NPN)	In-line	D-M9N-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●			
						D-M9P-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				2-wire	D-M9B-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				3-wire (NPN)	Perpendicular	D-M9NV-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				3-wire (PNP)		D-M9PV-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				2-wire	D-M9BV-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
				3-wire (NPN)	In-line	D-M9NW-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
				3-wire (PNP)		D-M9PW-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
				2-wire	D-M9BW-900	●	●	●	○	○	●	—	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
				3-wire (NPN)	Perpendicular	D-M9NVV-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
				3-wire (PNP)		D-M9PVV-900	●	●	●	○	—	●	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
				2-wire	D-M9BWW-900	●	●	●	○	○	●	—	—	—	●	●	●	●	●	●	●	●	—	●	●	●	●	●	●
	3-wire (NPN)	In-line	D-Y59A-900	●	●	●	○	—	—	—	—	●	●	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-Y7P-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-Y59B-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (NPN)	Perpendicular	D-Y69A-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-Y7PV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-Y69B-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (NPN)	In-line	D-Y7NW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-Y7PW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-Y7BW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (NPN)	Perpendicular	D-Y7NVV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-Y7PVV-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-Y7BWW-900	●	●	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (NPN)	In-line	D-S991-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-S992-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-S9P1-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-S9P2-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-T991-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-T992-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (NPN)	Perpendicular	D-S99V1-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3-wire (PNP)		D-999V2-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-S9PV1-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-S9PV2-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-T99V1-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	2-wire	D-T99V2-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
3-wire (NPN)	In-line	D-S791-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
3-wire (PNP)		D-S792-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2-wire	D-S7P1-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2-wire	D-S7P2-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2-wire	D-T791-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2-wire	D-T792-901*	●	—	●	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

\* Solid state auto switches marked "○" are produced upon receipt of order.

\* Note that the individual auto switch with part number of "S□□" and "T□□" have the right-hand-type (□□□1) and the left-hand-type (□□□2).

When you order the actuator with two auto switches at the part number of the actuator, one each of the right-hand-type and the left-hand-type are shipped together with the actuator.

\* When the MHZ2-10, MHZL2-10, MHL2-10 to 40, or MHS3-32 air gripper is ordered with auto switch, mounting brackets are supplied with the air gripper. When the auto switch is used at the square groove on the side with other cylinder bore sizes, or ordering only auto switches separately, mounting brackets (90-BMG2-012) are required. Order them separately. For details, refer to page 166.

### Ordering the Auto Switches

Please be aware that the order part numbers for the air gripper mounted and individual auto switches are different.

(Example) Part number for ordering D-M9BWL-900:

- Air gripper mounted type: 25A-MHZ2-16D-M9BWL  
(Omit the first "D-" and the last "-900" or "-901".)

- Individual auto switch: D-M9BWL-900

(Place the order with the part number for auto switch shown in the table above.)

- \* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW
- 1 m..... M (Example) M9NWM
- 3 m..... L (Example) M9NWL
- 5 m..... Z (Example) M9NWZ

\* Lead wire for a solid state auto switch with "-901" at the end of part number has been changed to a cable for a robot use.

**Applicable Electric Actuator Series**

Auto switches											Electric actuators			
Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Electrical entry direction	Auto switch model	Lead wire length [m]				Pre-wired connector	LEFS 16 to 40	LEJS 40 to 63	LEY 16 to 40
							0.5	1	3	5				
							Nil	M	L	Z	SDPC			
Solid state auto switch	—	Grommet	None	2-wire	In-line	D-A90-900	—	—	●	—	—	—	—	—
						In-line	D-M9N-900	●	●	●	○	—	●	●
		D-M9P-900		●	●		●	○	—	●	●	●		
		D-M9B-900		●	●		●	○	—	●	●	●		
		D-M9NV-900		●	●		●	○	—	●	●	●		
		Perpendicular		D-M9PV-900	●	●	●	○	—	●	●	●		
				D-M9BV-900	●	●	●	○	—	●	●	●		
				In-line	D-M9NW-900	●	●	●	○	—	●	●	●	
					D-M9PW-900	●	●	●	○	—	●	●	●	
		Perpendicular		D-M9BW-900	●	●	●	○	○	●	●	●		
	D-M9NWV-900		●	●	●	○	—	●	●	●				
	D-M9PWV-900		●	●	●	○	—	●	●	●				
	D-M9BWL-900		●	●	●	○	○	●	●	●				

- \* Solid state auto switches marked "○" are produced upon receipt of order.
- \* Auto switches cannot be ordered with the actuator part number. They should be ordered separately. Please refer below for ordering. One each of the right-hand-type and the left-hand-type are shipped together with the actuator.

**Ordering the Auto Switches**

- Individual auto switch: D-M9BWL-900  
(Place the order with the part number for auto switch shown in the table above.)
- \* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW  
1 m..... M (Example) M9NWM  
3 m..... L (Example) M9NWL  
5 m..... Z (Example) M9NWZ

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Air Filters/Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

Electric Actuators

**Auto Switches**



# Series 25A- Auto Switch Mounting

## Band Mounting Style

Applicable cylinder series: 25A-CDJ2, 25A-CDM2, 25A-CDG1, 25A-MGG

Applicable auto switches: D-M9□-900, D-M9□W-900, M9BWSRPC-900, M9BWSRPC-900, D-A90L-900

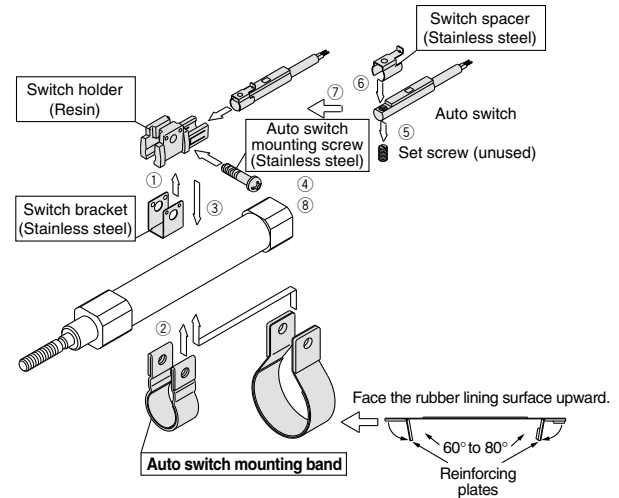
### Auto Switch Mounting Bracket Part No.

Cylinder series	Applicable bore size (mm)									
	10	16	20	25	32	40	50	63	80	100
25A-CDJ2	Note 1) 25A-BJ7-010S	Note 1) 25A-BJ7-016S	—	—	—	—	—	—	—	—
25A-CDM2	—	—	Note 2) 25A-BM6-020S	Note 2) 25A-BM6-025S	Note 2) 25A-BM6-032S	Note 2) 25A-BM6-040S	—	—	—	—
25A-CDG1	—	—	Note 3) 25A-BMA4-020S	Note 3) 25A-BMA4-025S	Note 3) 25A-BMA4-032S	Note 3) 25A-BMA4-040S	Note 3) 25A-BMA4-050S	Note 3) 25A-BMA4-063S	—	—
25A-MGG	—	—	Note 3) 25A-BMA4-020S	Note 3) 25A-BMA4-025S	Note 3) 25A-BMA4-032S	Note 3) 25A-BMA4-040S	Note 3) 25A-BMA4-050S	Note 3) 25A-BMA4-063S	—	—

Note 1) The combination of the auto switch mounting band (BJ2-□□□S/with a stainless steel screw) and the holder set (BJ3-1).

Note 2) The combination of the auto switch mounting band (for BM2-□□□) and stainless steel screw (BBA4), and the holder set (BJ3-1).

Note 3) The combination of the auto switch mounting band (for BMA2-□□□) and stainless steel screw (BBA4), and the holder set (BJ3-1).

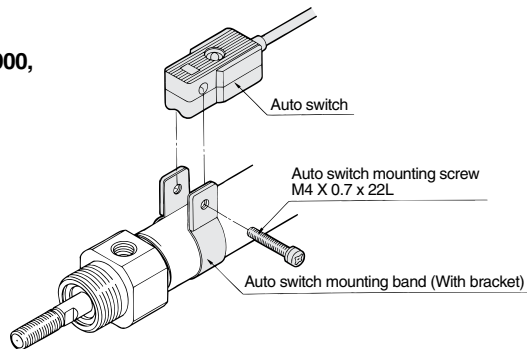


Applicable cylinder series: 25A-CDG1□80, 25A-CDG1□100

Applicable auto switches: D-G5□-900, D-K59-900, D-G5□W-900, D-K59W-900, D-K59WSRPC-900

### Auto Switch Mounting Bracket Part No.

Cylinder series	Applicable bore size (mm)	
	80	100
25A-CDG1	BA-08S	BA-10S



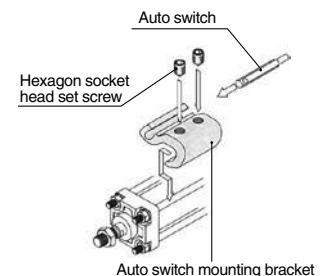
## Tie-rod Mounting Style

Applicable cylinder series : 25A-MDB, 25A-CDA2, 25A-CDS2

Applicable auto switches : D-M9□-900, D-M9□V-900, D-M9□W-900, D-M9□WV-900, M9BWSRPC-900, M9BWSRPC-900  
: D-A90L-900

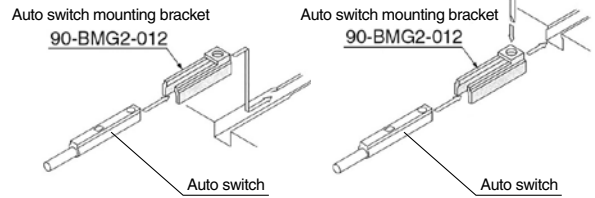
### Auto Switch Mounting Bracket Part No.

Cylinder series	Applicable bore size (mm)								
	32	40	50	63	80	100	125	140	160
25A-MDB	90- BMB5-032	90- BMB5-032	90- BA7-040	90- BA7-040	90- BA7-063	90- BA7-063	—	—	—
25A-CDA2	—	90- BA7-040	90- BA7-040	90- BA7-063	90- BA7-080	90- BA7-080	—	—	—
25A-CDS2	—	—	—	—	—	—	25A- BS6-125	25A- BS6-125	25A- BS6-160



## Direct Mounting Style

- Applicable cylinder series** : 25A-MY1B, 25A-MY1H, 25A-CY3R, 25A-MGP  
**Applicable air gripper series** : 25A-MHZ(L) 2, 25A-MHL2, 25A-MHS3  
**Applicable auto switches** : D-M9□-900, D-M9□V-900, D-M9□W-900, D-M9□WV-900, M9BWSDPC-900, M9BWWSDPC-900 : D-A90L-900



### Auto Switch Mounting Bracket Part No.

Cylinder series Air gripper series	Applicable bore size (mm)											
	10	12	15	16	20	25	32	40	50	63	80	100
25A-MY1B	—	—	—	—	Not required	90-BMG2-012	90-BMG2-012	90-BMG2-012	—	90-BMG2-012	—	90-BMG2-012
25A-MY1H	—	—	—	Not required	Not required	90-BMG2-012	90-BMG2-012	90-BMG2-012	—	—	—	—
25A-CY3R	—	—	Not required	—	Not required	90-BMG2-012	90-BMG2-012	90-BMG2-012	—	—	—	—
25A-MGP	—	90-BMG2-012	—	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012
25A-MHZ2	90-BMG2-012	—	—	Note 4)	Note 4)	Note 4)	Note 4)	Note 4)	—	—	—	—
25A-MHZL2	90-BMG2-012	—	—	Note 4)	Note 4)	Note 4)	—	—	—	—	—	—
25A-MHL2	90-BMG2-012	—	—	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	90-BMG2-012	—	—	—	—
25A-MHS3	—	—	—	Not required	Not required	Not required	90-BMG2-012	—	—	—	—	—

Note 4) When mounting D-M9 type of auto switch onto the square groove of the side of the air gripper, the auto switch mounting bracket (90-BMG2-012) is required.

Directional Control Valves  
 Air Cylinders  
 Related Products  
 Rotary Actuators  
 Air Grippers  
 Vacuum Equipment  
 Air Preparation Equipment  
 Clean Air Filters  
 Air Filters/Pressure Control Equipment  
 Fittings/Flow Control Equipment  
 Detection Switches  
 Fluid Control Equipment  
 Electric Actuators  
 Auto Switches



# Series 25A- Precautions

Be sure to read before handling.

## Precautions

### Caution

#### ■ Change of material

Series 25A- are copper- and zinc-free products, however, some parts including motors, cables, drivers for solenoid valves and electric actuators, and coils for auto switches, and connector pins and lead wires, whose material can not be changed, are made of copper.

#### ■ Particle generation (metallic contaminants)

Usage of metal stoppers and/or shock absorbers on an air slide table produces metal-to-metal collision and contact, and may generate wear particles. Do not use metal stoppers and/or shock absorbers in an environment where wear particles are problem.

The following models of air gripper may generate dust particles, as metal-to-metal collisions occur when fingers are fully closed.

- MHZ2
- MHZL2 (Except -X5955)
- MHF2
- MHY2

#### ■ Static electricity

Refrain from using the electrical equipments including detection switches (e.g., pressure switches and flow switches) in electrostatically-charged environments. Otherwise, they may cause the system to fail or to malfunction.

#### ■ Piping

Usage of nylon tubing and polyurethane tubing in environments with a low dew point may affect dew points of ambient air and inside of piping. Use fluoropolymer tubing (Series TL) or stainless steel copper tubing (Supply it on your own) in environments with a low dew point.

#### ■ Chemical environment

Refrain from using the products in such environments as exposed to chemicals. Otherwise, resin parts may deteriorate.

If you want SMC to test the products for the effects of chemicals attached to them, send the products back to SMC after thoroughly cleaning them.

Consult your SMC sales representative for further details.

#### ■ Trademark

DeviceNet™ is a trademark of ODVA.

EtherNet/IP™ is a trademark of ODVA.

EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

Be sure to read "Handling Precautions for SMC Products" (M-E03-3) and "Instruction Manuals" before using.





#### Revision history

- Edition B**
- The models compatible with secondary batteries added.
    - 5 port air operated valve: Series 25A-SYA
    - Vacuum unit: Series 25A-ZK2
    - Electric actuators: Series 25A-LEFS/LEJS/LEY
    - Air cylinders: Series 25A-CJ2-Z, 25A-MB-Z, 25A-MGP-Z
    - Stainless steel pressure gauge: Series G43, etc. added.
  - Number of pages increased from 149 to 172.

ST

# Series Compatible with Secondary Batteries

Series 25A-

Copper (Cu)  
and Zinc (Zn)

**Free**

Compatible with  
a low dew point

**-94°F**  
(-70°C)

Using grease  
compatible with  
a low dew point

**Longer  
life**

A wide range  
of lineup

**Number of  
models is  
expanded**

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