Exhaust Flow Control Valve New with Silencer

Integrated Restrictor and Silencer

Reduced assembly time and number of components A push-lock type and a type with a compact indicator are available.

Resin body

Weight reduced by up to 80 %, Lightweight (7.6 g ← 34 g) * Comparison between the ASN2-02A and the existing ASN2-02 (metal body) The body's outer diameter size is the same as the existing model.

With the compact indicator, the flow rate can be controlled numerically.

Contributes to reduced setting errors and work hours by managing flow rate figures (indicator)



Vernier scale

Variations							
Model	Port size	C values: Sonic conductance [dm³/(s·bar)]					
ASN2(S)-M5A	M5 x 0.8	0.36					
ASN2(S)-U10/32A	10-32UNF	0.36					
ASN2(S)-(N)01A	1/8	0.72					
ASN2(S)-(N)02A	1/4	1.3					
ASN2(S)-(N)03A	3/8	3.32					
ASN2(S)-(N)04A	1/2	4.9					

ASN2 - A Series

The speed can be adjusted on the valve side.

Speed control is possible even if a cylinder is installed at a high or narrow place where it is not accessible.





Exhaust Flow Control Valve with Silencer ASN2 - A Series RoHS

Model

Mastal	Deut sins	Weight [g]			
IVIODEI	Port size	Push-lock	With compact indicator		
ASN2(S)-M5A	M5 x 0.8	1.5	0.1		
ASN2(S)-U10/32A	10-32UNF		2.1		
ASN2(S)-(N)01A	1/8	4.3	5.4		
ASN2(S)-(N)02A	1/4	7.6	9.1		
ASN2(S)-(N)03A	3/8	12.8	15.0		
ASN2(S)-(N)04A	1/2	24.0	26.8		

Specifications

-				
Proof pressure	1.5 MPa			
Operating pressure range	0 to 1 MPa			
Ambient and fluid temperatures	–5 to 60 °C (No freezing)			

Symbol



Flow Rate and Sonic Conductance

Model	ASN2(S)-M5A	ASN2(S)-01A	ASN2(S)-02A	ASN2(S)-03A	ASN2(S)-04A
C values: Sonic conductance dm ³ /(s·bar)	0.36	0.72	1.3	3.32	4.9
b values: Critical pressure ratio	0.15	0.35			

Needle Valve: Flow Rate Characteristics

ASN2(S)-M5A, ASN2(S)-U10/32A



ASN2(S)-(N)03A



ASN2(S)-(N)01A



ASN2(S)-(N)04A



How to Order

With compact indicator

1.1



* The flow rate characteristics are representative values.

ASN2(S)-(N)02A



SMC

Dimensions

Seal method: Gasket seal For M5, 10-32UNF







Ø D2





With compact indicator

	T (R, NPT)	Ø D 1	Ø D 2		I A:		*1	With compact indicator				н	
Model				L .		A			L		A *1		(Width
				Locked	Unlocked	Locked	Unlocked	002	Locked	Unlocked	Locked	Unlocked	across flats)
ASN2(S)-M5A	M5 x 0.8	10	9.4	21.4	22.5	18.0	19.1	11	26.9	28.0	23.4	24.5	—
ASN2(S)-U10/32A	10-32UNF	10	9.4	21.4	22.5	18.0	19.1	11	26.9	28.0	23.4	24.5	-
ASN2(S)-(N)01A	1/8	15	12	32.4	33.8	28.4	29.8	14	38.0	39.5	34.0	35.5	10 (9.5)
ASN2(S)-(N)02A	1/4	20	13	37.6	39.2	31.6	33.2	15	44.1	45.6	38.1	39.6	12 (12.7)
ASN2(S)-(N)03A	3/8	25	16.6	42.0	43.6	35.6	37.2	17.7	49.0	50.5	42.7	44.2	14 (14.3)
ASN2(S)-(N)04A	1/2	30	18.8	51.3	52.9	43.1	44.7	19.7	58.7	60.2	50.5	52.0	21 (20.6)

*1 Reference dimensions of threads after installation

* The values in () are for NPT thread.

▲ Specific Product Precautions

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For flow control equipment precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

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Design / Selection

1. Operation manual

Install the product and operate it only after reading the operation manual carefully and understanding its contents. Also, keep the manual where it can be referred to as necessary.

2. Example of inapplicable circuits

(a) Perfect valve (VF66 U, VS7-6-FPG, VS7-8-FPG)



Residual pressure behind the exhaust needle may cause the check valve in the perfect valve to malfunction.

(b) Pilot check valve between actuator and valve

Residual pressure behind the exhaust needle may cause the pilot check valve to malfunction.

Mounting

1. If installing flow controls to valve ports, interference may occur with the fittings. Please consult the catalogue before installing.



Fig. Example of the interference with fittings

Maintenance

1. Since taper threads are made of resin, minute leakage may gradually occur due to stress relaxation.

\wedge	Safety I	nstructions	These safety instructions damage. These instructions	s are intended to prevent hazardous situations and/or equipment ions indicate the level of potential hazard with the labels of
			"Caution," "Warning" of followed in addition to In	or "Danger." They are all important notes for safety and must be iternational Standards (ISO/IEC) ¹⁾ , and other safety regulations.
⚠	Danger:	Danger indicates a hazard wit which, if not avoided, will resu injury.	th a high level of risk It in death or serious	 ISO 4414: Pneumatic fluid power – General rules and safety requirements for systems and their components. ISO 4413: Hydraulic fluid power – General rules and safety requirements for systems and their components.
⚠	Warning:	Warning indicates a hazard w which, if not avoided, could re injury.	vith a medium level of risk esult in death or serious	 IEC 60204-1: Safety of machinery – Electrical equipment of machines (Part 1: General requirements) ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.
		Caution indicates a hazard w	ith a low level of risk	etc.

▲ Warning

which, if not avoided, could result in minor or moderate

▲ Caution:

injury.

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications. Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

- 3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
 - 1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
 - 2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
 - 3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

 Our products cannot be used beyond their specifications.
 Our products are not developed, designed, and manufactured to be used under the following conditions or environments.
 Use under such conditions or environments is not covered.

- 1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
- 2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, fuel equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogues and operation manuals.
- 3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

∧ Caution

We develop, design, and manufacture our products to be used for automatic control equipment, and provide them for peaceful use in manufacturing industries. Use in non-manufacturing industries is not covered.

Products we manufacture and sell cannot be used for the purpose of transactions or certification specified in the Measurement Act.

The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".Read and accept them before using the product.

Limited warranty and Disclaimer

- 1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.²⁾ Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
- 2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
- 3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.
- 2) Vacuum pads are excluded from this 1 year warranty. A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

- 1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
- The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

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