⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

⚠ Danger: Danger indicates a hazard with a high level of risk which, If not avoided, will result in death or serious injury.

Warning: Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Caution: Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) 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 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

⚠ Warning

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 catalog 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.
- 4. 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 catalogs 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

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 catalog 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.
- 2. 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.

A Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.



⚠ Safety Instructions

Temperature Control Equipment These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC), and other safety regulations.

🗥 Danger :

Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious iniurv.

Warning indicates a hazard with a medium level of Warning: risk which, if not avoided, could result in death or serious injury.

Caution indicates a hazard with a low level of risk Caution: which, if not avoided, could result in minor or moderate injury.

⚠ Warning

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 catalog 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. 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 catalogs 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.

Compliance Requirements

- The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
- 2. 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.

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

The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.

2. Scope

For any failure reported within the warranty period which is clearly our responsibility, replacement parts will be provided. In that case, removed parts shall become the property of SMC.

This guarantee applies only to our product independently, and not to any other damage incurred due to the failure of the product.

3. Content

The following situations are out of scope of this warranty

- The product was incorrectly installed or connected with other equipment.
- The product was modified or altered in construction. The failure was a secondary failure of the product caused by the failure of equipment connected to the product.
- The failure was caused by a natural disaster such as an earthquake, typhoon, or flood, or by an accident or fire.
- The failure was caused by operation different from that shown in the Operation Manual or outside of the specifications
- 6. The checks and maintenance specified (daily checks and regular checks) were not performed.
- 7. The failure was caused by the use of circulating fluid or facility water other than those specified
- 8. The failure occurred naturally over time (such as discoloration of a painted or plated face).
- 9. The failure does not affect the functioning of the product (such as new sounds, noises and vibrations).
- 10. The failure was due to the "Installation Environment" specified in the Operation Manual.

4. Disclaimer

- . Expenses for daily and regular checks
- Expenses for repairs performed by other companies
- 3. Expenses for transfer, installation and removal of the product
- Expenses for replacement of parts other than those in this product, or for the supply of liquids
- 5. Inconvenience and loss due to product failure (such as telephone bills, compensation for workplace closure, and commercial losses)

For warranted repair, please contact the supplier you purchased this product from.

A Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.



Process Gas Equipment

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution", "Warning" or "Danger". They are all important notes for safety and must be followed in addition to International Standards (ISO)*1), Japan Industrial Standards (JIS)*2) and other safety regulations*3).

Danger indicates a hazard with a high level of risk **⚠** Danger : which, if not avoided, will result in death or serious

Warning: Warning Indicates a mazard with a median or risk which, if not avoided, could result in death or Warning indicates a hazard with a medium level of

serious injury.

Caution indicates a hazard with a low level of risk moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components

*2) JIS B 8370: Pneumatic fluid power - General rules and safety requirements for systems and their components

*3) High Pressure Gas Safety Act, Labor Safety and Sanitation Law etc.

⚠ Warning

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 fluid and specific equipment must be decided by the person who designs the equipment or decided 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 thoroughly review all specifications of the product referring to its latest catalog 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, installation operation maintenance of the given 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.
- 4. 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 outdoors (use in a place protected from adverse environmental).
 - 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 catalogs 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

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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 after the product is delivered to customer from SMC.
- 2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will
 - 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 the products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

Compliance Requirements

- 1. When the product is exported, strictly follow the laws required by the Ministry of Economy, Trade and Industry (Foreign Exchange and Foreign Trade Control Law).
- 2. The products printed in the catalog are USA manufactured products of AP Tech. As such, they fall within the United States Export Administration Regulations (EAR) regarding re-exports.
 - It is the exporter's responsibility to assure that these regulations are followed when the products are exported.

A Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) before use.

Metso Valve Controller

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

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⚠ Caution: Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

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⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

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 - 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 catalogs and operation manuals.
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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

Scope of Warranty: Warranty shall be granted for non-conformity of the Company's product ("Product") to the relevant specifications. Any such non-conformity resulting from wear of expendable parts resulting from the Customer's normal use thereof, or from the Customer's inappropriate, insufficient or inexperienced maintenance or from the Customer's inappropriate storage, installation, use, operation or the like, or from the Customer's modification or the like are excluded from warranty.

Period of Warranty: One (1) year from the commencement of use by the Customer or one year and half (1.5) from the delivery of the Product; whichever expires earlier.

Claiming Procedures: If the Customer determines that the Product is non-conforming, the Customer shall immediately notify the Company. If the notice does not arrive at the Company within two (2) weeks from the date of expiration of the relevant warranty period, the Customer's rights to warranty is forfeited. Even in the case where the notice arrives within the period prescribed above, liability for any damage arising from any delay of the notice shall be borne by the Customer.

Remedies: If any non-conformity is actually found in the Product as a result of an inspection made by the Company, the Company shall, upon consultation, repair or replace the Product. The Company will not accept any other claims (such as monetary compensation).

Related Expenses: Where the Product is eligible for warranty, shipment expenses therefor shall be borne by the Company. Regardless of whether or not the Product is eligible for warranty, expenses for removal and installation incurred in relation to replacement of the Product shall be borne by the Customer.

Limitation of Liability: Even if any legal liability in whichever form other than the warranties set forth above arises in respect of the Company, the Company's scope of liability shall be limited as follows:

- · The Company shall be held liable only to the extent that the relevant liability is caused by its act or omission due to its negligence.
- The Company's liability shall not exceed the amount of direct damages incurred by the Customer in respect of the Product, and the Company shall not be held liable for any indirect, contingent, consequential or punitive damage.
- The Company's liability shall not exceed the amount of the sales price of the Product.

 The Company shall not be held liable for any damage caused to the nuclear energy,
- space or aviation business, for any damage due to any force majeure events including war, terrorist activities or natural disasters, or for compliance with safety regulations or environmental regulations that is beyond the scope of business of the Company.

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.
- 2. 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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