



Installation and Maintenance Manual

2 Port Solenoid Valve

AVJ3220-5D0-02-X112



1 Safety Instructions

- This manual contains essential information for the protection of users and others from possible injury and/or equipment damage.
- Read this manual before using the product, to ensure correct handling, and read the manuals of related apparatus before use.
- Keep this manual in a safe place for future reference.
- These instructions indicate the level of potential hazard by label of "Caution", "Warning" or "Danger", followed by important safety information which must be carefully followed.
- To ensure safety of personnel and equipment the safety instructions in this manual and the product catalogue must be observed, along with other relevant safety practices.

Caution	If instructions are not followed there is a possibility of injury or equipment damage.
Warning	If instructions are not followed there is a possibility of serious injury or loss of life.
Danger	In extreme conditions, there is a possibility of serious injury or loss of life.

Warning

- The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications. Since the products specified here can be used in various operating conditions, their compatibility with the specific pneumatic system must be based on specifications or after analysis and/or tests to meet specific requirements.
- Only trained personnel should operate pneumatically operated machinery and equipment.**
Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced personnel.
- Do not service machinery/equipment or attempt to remove components until safety is confirmed.**
 - Inspection and maintenance of machinery/equipment should only be performed after confirmation of safe locked-out control positions.
 - When equipment is to be removed, confirm the safety process as mentioned above. Switch off air and electrical supplies and exhaust all residual compressed air in the system.
 - Before machinery/equipment is re-started, ensure all safety measures to prevent sudden movement of cylinders etc. (Supply air into the system gradually to create back pressure, i.e. incorporate a soft-start valve).
- Do not use this product outside of the specifications. Contact SMC if it is to be used in any of the following conditions:**
 - Conditions and environments beyond the given specifications, or if the product is to be used outdoors.
 - Installations in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverage, recreation equipment, emergency stop circuits, press applications, or safety equipment.
 - An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.

Caution

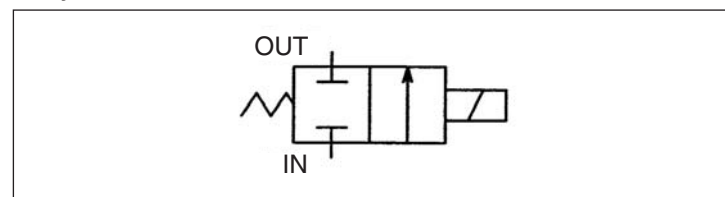
- Ensure that the air supply system is filtered to 5 microns.

2 Specifications

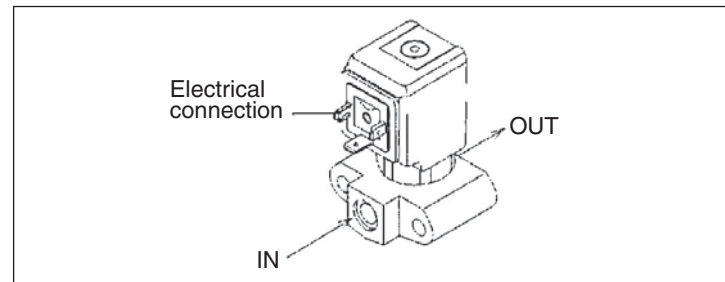
2.1 General Specifications

Operating Fluid	Air
Operating Pressure Range	0 ~0.7 MPa
Ambient and Operating Air Temperature	5~40°C
Effective Sectional Area	19mm ²
Mass	260g
Resistance	31±2Ω
Operating Voltage	<p>Duty Ratio = Less than 50%</p> <p>T1: Time per cycle, T2 Energizing time</p> <p>Duty ratio is the percentage of energizing time per cycle.</p> <p>Duty Ratio = T2/T1x100%</p>
Frequency	1500 c.p.m.

2.2 Symbol



2.3 Piping



3 Installation

3.1 Installation

Warning

- Do not install the product unless the safety instructions have been read and understood.

Warning

3.2 Environment

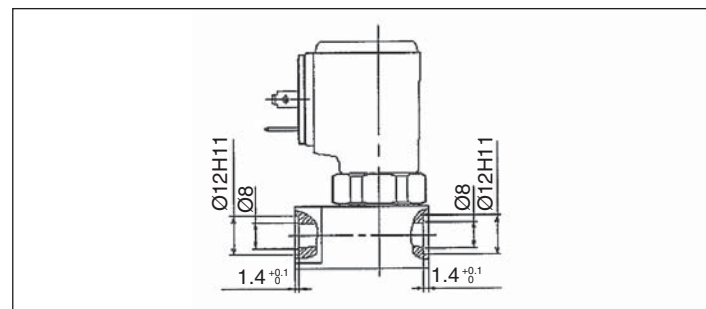
- Do not use in an environment where the product is directly exposed to corrosive gases, chemicals, salt water or steam.
- Do not use in an explosive atmosphere.
- The product should not be exposed to prolonged sunlight. Use a protective cover.
- Do not mount the product in a location where it is subject to strong vibrations and/or shock. Check the product specifications.
- Do not mount the product in a location exposed to radiant heat.

3 Installation (continued)

3.3 Piping

Caution

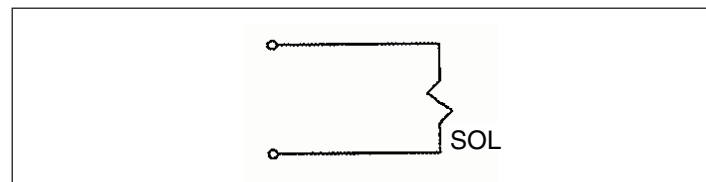
- Before piping make sure to clean up chips, cutting oil, dust etc.



3.4 Electrical connection

Caution

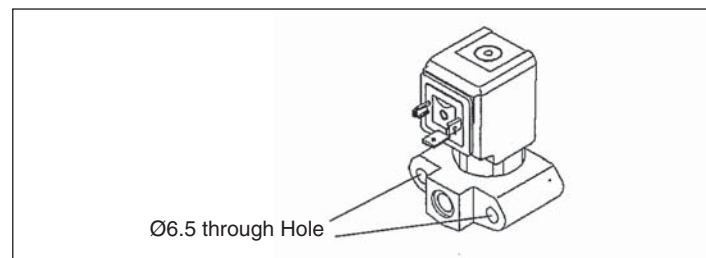
- The coil of the AVJ3220-5D0-X112 has been designed for a fast response time so cannot be continuously energized.



3.5 Mounting

Caution

- If air leakage increases or equipment does not operate properly, stop operation.**
After mounting or maintenance, connect the compressed air and power supply, check for leakage and operate the valve to confirm that the unit is mounted properly.
- Instruction manual**
Mount and operate the product after reading the manual carefully and understanding its contents. Keep the manual where it can be referred to as necessary.
- Painting and coating**
Warnings and specifications printed on the product should not be erased, removed or covered.



3.6 Lubrication

Caution

- SMC products have been lubricated for life at manufacture, and do not require lubrication in service.
- If a lubricant is used in the system, use turbine oil Class 1(no additive), ISO VG32. Once lubricant is used in the system, lubrication must be continued because the original lubricant applied during manufacturing will be washed away.

4 Maintenance

4.1 General Maintenance

Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous. Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, ensure the supply pressure is shut off and all residual air pressure is released from the system.
- After maintenance apply operating pressure and power to the equipment and check for proper operation and possible air leaks. If operation is abnormal, verify product set-up parameters.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions.

Refer to the maintenance manual for AVJ3220-5D0-02-X112. Document No. K33-MMH0001.

5 Limitations of Use

Warning

- Do not exceed any of the specifications laid out in section 2 of this document or the specified product catalogue.

6 Contacts

AUSTRIA	(43) 2262 62280	NETHERLANDS	(31) 20 531 8888
BELGIUM	(32) 3 355 1464	NORWAY	(47) 67 12 90 20
CZECH REP.	(420) 541 424 611	POLAND	(48) 22 211 9600
DENMARK	(45) 7025 2900	PORTUGAL	(351) 21 471 1880
FINLAND	(358) 207 513513	SLOVAKIA	(421) 2 444 56725
FRANCE	(33) 1 6476 1000	SLOVENIA	(386) 73 885 412
GERMANY	(49) 6103 4020	SPAIN	(34) 945 184 100
GREECE	(30) 210 271 7265	SWEDEN	(46) 8 603 1200
HUNGARY	(36) 23 511 390	SWITZERLAND	(41) 52 396 3131
IRELAND	(353) 1 403 9000	UNITED KINGDOM	(44) 1908 563 888
ITALY	(39) 02 92711		

SMC Corporation

URL <http://www.smcworld.com> (Global) <http://www.smceu.com> (Europe)
Specifications are subject to change without prior notice from the manufacturer.
© 2009 SMC Corporation All Rights Reserved.