

INSTRUCTION MANUAL

SELEXVALVE

1
2
M4F2 3 0
4
8

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

Revision2

CKD Corporation

For Safety Use

To use this product safely, basic knowledge of pneumatic equipment, including materials, piping, electrical system and mechanism, is required (to the level pursuant to JIS B 8370 Pneumatic System Rules).

We do not bear any responsibility for accidents caused by any person without such knowledge or arising from improper operation.

Our customers use this product for a very wide range of applications, and we cannot keep track of all of them. Depending on operating conditions, the product may fail to operate to maximum performance, or cause an accident. Thus, before placing an order, examine whether the product meets your application, requirements, and how to use it.

This product incorporates many functions and mechanisms to ensure safety. However, improper operation could result in an accident. To prevent such accidents, read this operation manual carefully for proper operation.

Observe the cautions on handling described in this manual, as well as the following instructions :

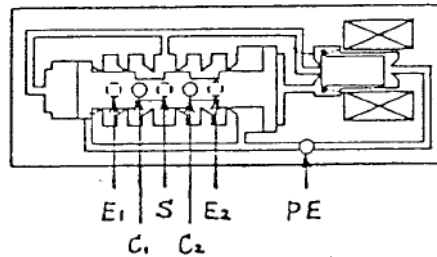
Precautions

- Do not touch electric wiring connections (exposed live parts) : this will cause an electric shock. During wiring, keep the power off. Also, do not touch these live parts with wet hands.
- Mounting brackets are attached.
When use the product, mounting brackets must be assembled.
Tightening torque: 5.0~5.5 N·m

Operating Methods

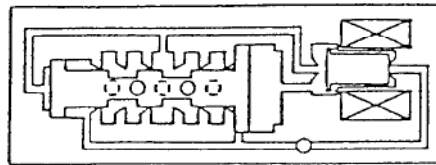
When dienergized

S(SUP) open to C 1(CYL 1), C 2(CYL 2) exhausted via E 2(EXH 2)

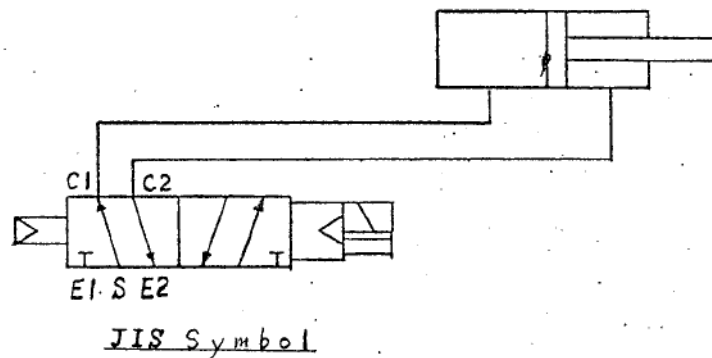


When energized

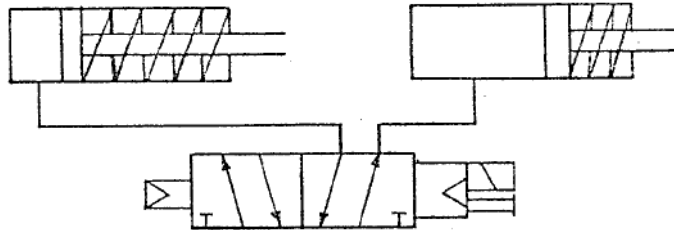
S open to C 2, C 1 exhausted via E 1(EXH 1).

Applications

1. In case of operating the cylinder which the pressure is applied to its both sides.

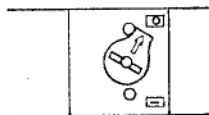


2. In case of operating an one-side cylinder alternatively or a desired one out of both cylinders , as a 3-way.



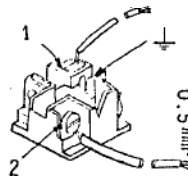
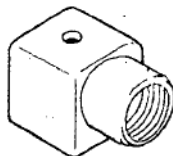
3. Others

- (1) This electromagnetic valve is of two-positioned type, having no neutral position.
- (2) When the speed control on the cylinder is required, connect speed control valves to the exhaust side.
- (3) Besides the operation according to electrical signals, it is possible to operate manually by means of turning a thumb-cock to the right (direction 1)with your screw-driver or coin. By all means you may put it back in its place, after finishing of business.



Wiring

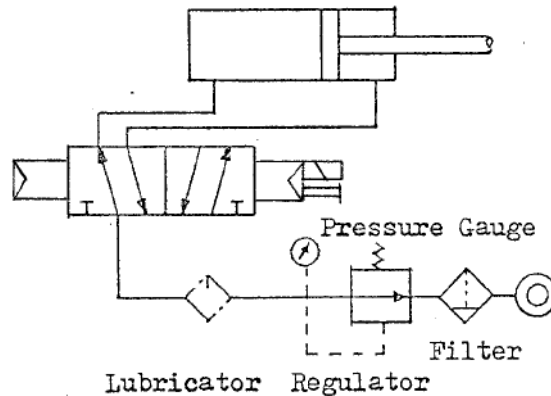
1. Wires of more than 0.5 mm^2 at cross sectional area of core can be connected to the socket terminals (1 & 2) of the contact elements. Earth a terminal \perp , if necessary.



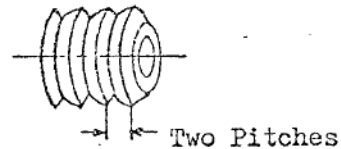
2. Insert a fuse of capacity 0.5 - 1 A for protection of electrical circuits.

3. Whenever possible, use electrical circuit switches or relays of snap action.
4. The diameter of electric cable at the lead wire inlet to connector should be ϕ 5, 7, 9 or 11, if necessary to protection against ingress of dust and splash water.

Piping



1. Pay attention to the direction of air flow.
2. Thoroughly clean up inside pipes before installation of the electromagnetic valve.
 - (1) Remove dust and flashes
 - (2) Do not apply the sealing agent to first two pitches of the screw.
3. Do not stop up port PE from which pilot air can exhaust.
4. Install the filter and, if necessary, the lubricator with turbine oil # 90 in front of the valve.
5. Upon installation, do not apply an excessive force to the electromagnetic valve.
6. Select a place with the least possible amount of vibration or shock for installation of pipes.
7. After completion of the piping, thoroughly check every part for leakage.
8. Secure the space for tool maneuver in the event of maintenance services.



Maintenance Service

1. Disassembly of the valve

- (1) Remove the solenoid (2) which can be fixed with two set-screws (15) (16).
- (2) Remove the mounted block (3) which can be fixed with two set-screws (17).
- (3) Remove the cap (14) which can be fixed with four set-screws (17).
- (4) Pull out the cylinder (7) on the side of the solenoid.
- (5) Push out the piston (5) on the side of the cap, thus permitting the inner assembly to be taken out from the valve body (9).

For details refer to the below disassembly diagram.

2. Before assembly of the unit, thoroughly clean and remove dust off such places as the outer surface of the piston and the spool, and the inside of the spool packings.

