

## INSTRUCTION MANUAL

### SELEXVALVE

### AM4F010

- 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.

## 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.

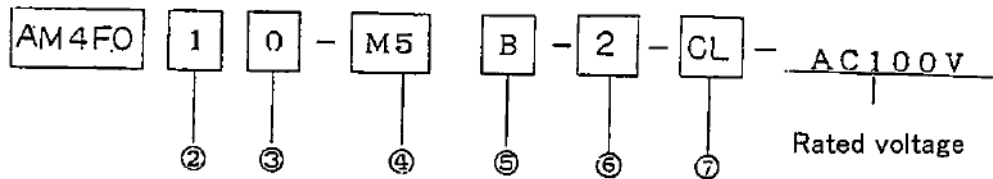
Observe the cautions on handling described in this manual, as well as the following instructions :

### 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.

# Model Number Indication

SM-3034-A



\*The model number above indicates a Manifold with 2-position single solenoid, solenoid valve, pipe size M5DIN terminal box, manual non lock voltage 100VAC 50Hz, 2 banks, and centralized exhaustion L-fitting.

②	Solenoid position
1	2-position single
2	2-position double
③	Mode of operation
0	Solenoid valve
④	Pipe size
M5	M5
06	Rc 1/8
⑤	Options
Non mark	Manual non lock
M1	Manual lock type
M4	Non lock type with manual dustproof cover
R	Position modification of manual device
B	DIN terminal box
C type connector	C Lead wire length (300 mm)
	C1 No lead wire
	C2 Lead wire length (300 mm) surge absorber and lamp provided
	C3 No lead wire surge absorber and lamp provided
	S Surge absorber attached
⑥	Station number
2	2 stations
?	?
10	10 stations
⑦	Exhaustion system fittings ※Attached(note)
CL	With centralized exhaustion L-fitting
CU	With centralized exhaustion U-fitting
IL	With individual exhaustion L-fitting
IU	With individual exhaustion U-fitting

(Note) Tightening torque for mounting bracket assembly screws : 3.0~3.5 N·m

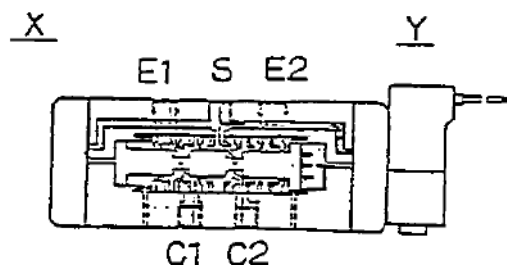
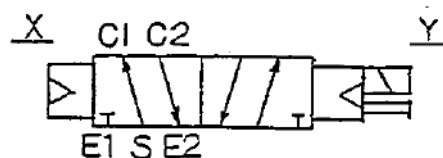
### Explanation of Operation

In nonconducting state:

From S (SUP) to C1 (CYL1), and C2 (CYL2) to exhaustion E2 (EXH2).

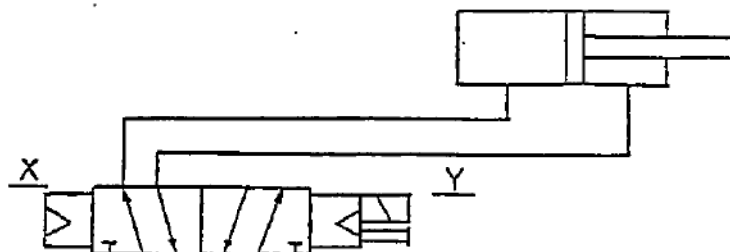
In conducting state at Y side:

Form S (SUP) to C2 (CYL2), and from C1 (CYL2) to exhaustion E1 (EXL1).

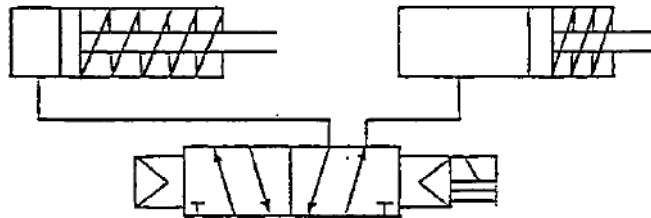


### Use/Piping Method and Application

1. For cylinders, connect C1 and C2 ports of this solenoid valve with corresponding ports on a cylinder.



2. For a single-acting cylinder, a port on one side of this solenoid valve is used as 3-port valve.



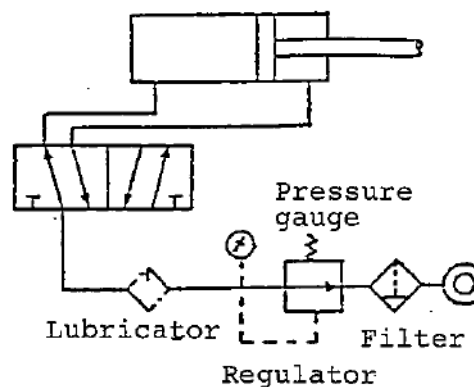
### 3. Others

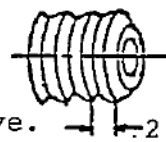
- (1) This solenoid valve is of 2-position type. There is not any neutral position.
- (2) When a cylinder is required for speed control, connect a speed controller to EXH side.

### Cautions:

1. Connect a fuse of 0.5 to 1 A in between an electric circuit to protect it.
2. Use a snap-action type device such as relay or magnetic switch in a circuit.

### Precautions for Wiring

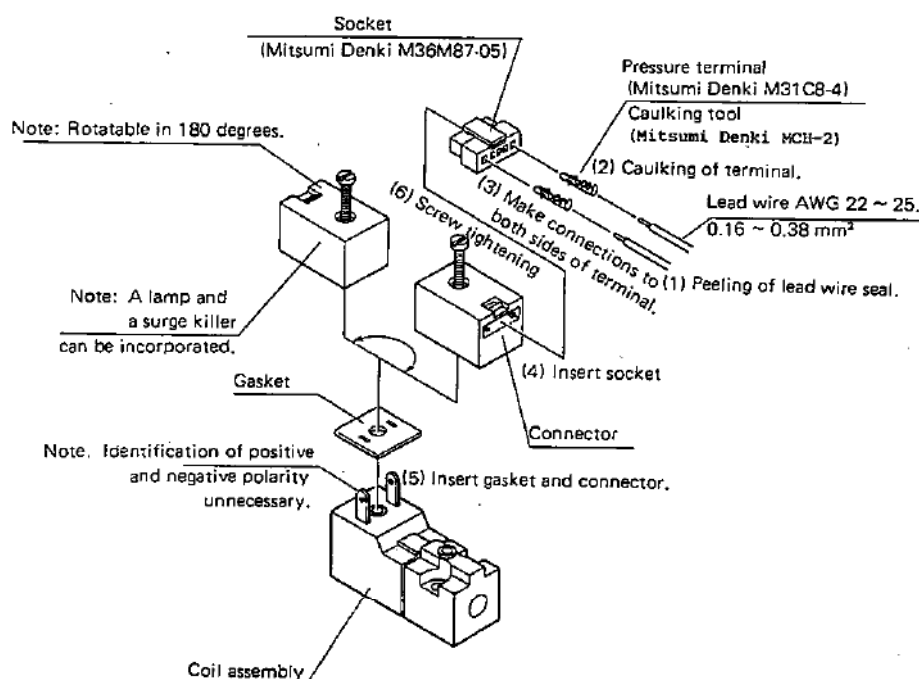




1. Use a sufficient pipe size for a flow rate given.
2. Clean a piping before installing a solenoid valve.
  - 1) Clear a dust from the piping by means of air flushing.
  - 2) Wind a seal tape from a position 1 to 2 pitches away from an end face.
3. Be sure to install a filter. If necessary, install a lubricator (turbine oil type 1 ISO VG 32) on a valve.
4. Do not supply an oil to the solenoid valve more than necessary amount using this lubricator.
5. Select a place with less vibration or shock for piping.
6. After piping, check that there is not any leakage by blowing an air.
7. Reserve a space for tools when performing maintenance service.

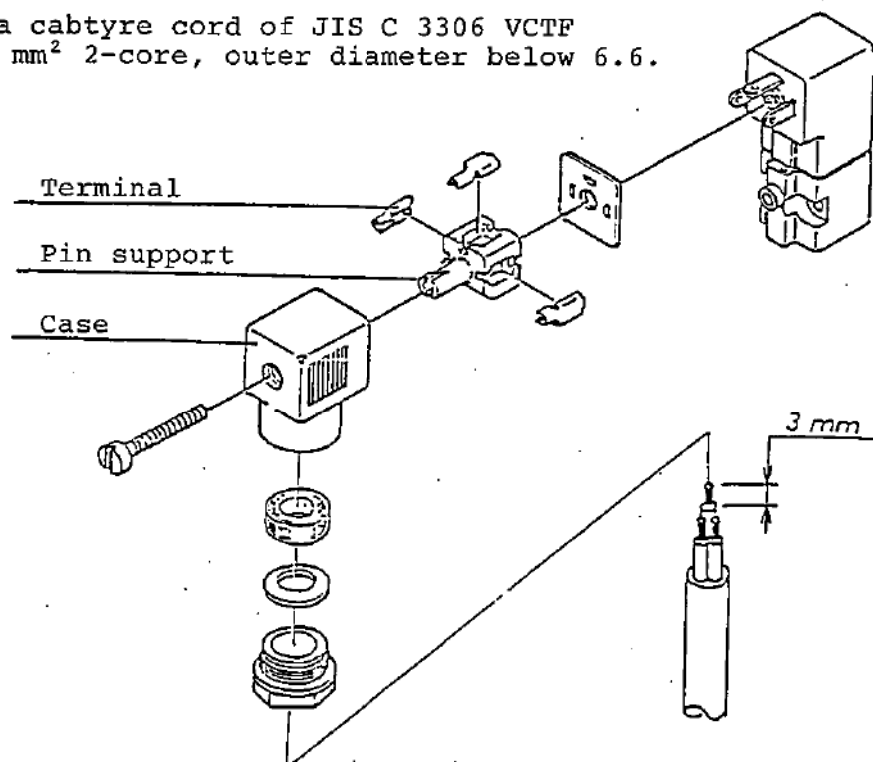
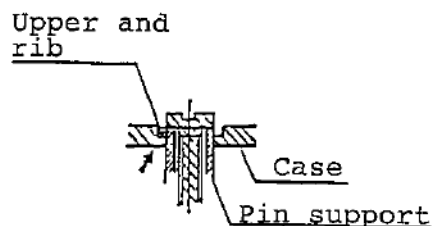
#### Connecting Method of Connectors

Refer to the figure below for connection of C1 connector and C3 connector in the order of 1 to 6.



## Terminal Box

- ① Use the following tool for calking a terminal. Showa Musen Kogyo CT-1424 (or equivalent).
- ② When inserting a calked terminal to pin support, be careful for the direction of the terminal.
- ③ When installing a case, hang an upper end rib of the pin support onto the end of the case.
- ④ Use a lead wire of 0.3 to 0.75 mm<sup>2</sup>.
- ⑤ The lead wire can be taken out from an outlet of the case in four directions of every 90°.
- ⑥ Use a cabtyre cord of JIS C 3306 VCTF 0.75 mm<sup>2</sup> 2-core, outer diameter below 6.6.



Dimension of Cabtyre cord

Case in- stallation direction				
Peeling length of cord seal				

Precautions for Wiring

- (1) When waterproofness is required for DIN terminal box, use a cabtyre cord of outer diameter below 6.6.
- (2) Use connector type C, C1, C2, and C3 at the place subject to less dust and not directly exposed to water, oil, and so on.
- (3) Use a voltage within the rated voltage  $\pm 10\%$ .
- (4) When using a noncontact circuit, be careful for leakage current:

For AC coils: 10% or less of rated current (leakage current 1mA or less)

For DC coils: select an equipment with leakage current of 1% or less of rated current.



## Maintenance Service

## 1. Disassembling /reassembling the valve

- (1) Remove the mounting machine screw (2) to take off the solenoid (12).
- (2) Remove the mounting machine screw (3) to take off the cap (4) at both sides.
- (3) For the solenoid side, pull out each cylinder (10).
- (4) When pushing the piston (11) toward opposite to the solenoid, parts in the valve body (9) comes out.

For details, refer to the figure below.

2. Before reassembling the unit, wipe off a dust from the surface such as inside of piston, spool, spool packing, at the place with less dust.

