

INSTRUCTION MANUAL SELEXVALVE

1
2
M4F1 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.

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 :



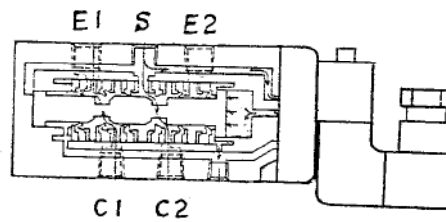
Precautions

- 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.

Operating Methods

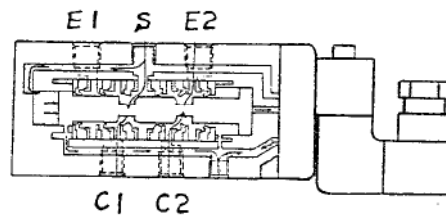
When energized

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

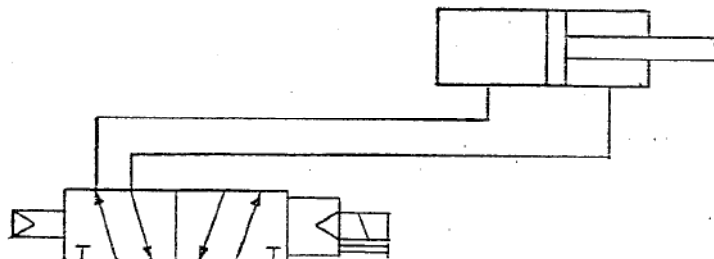


When deenergized

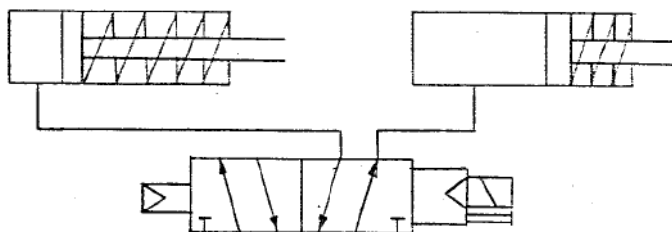
S(SUP) open to C 1 (CYL 1), C 2 (CYL 2) exhausted via E 2 (EXH 2)

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.



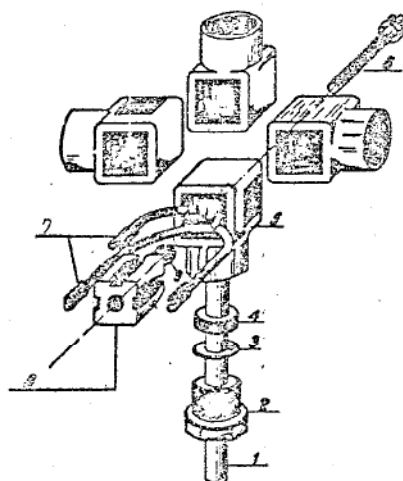
3. Others

- (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 or metering valves to the exhaust side.

Wiring

1. Wiring to connector

ASSEMBLY : Use electric cable with 5.5 to 7 mm with 3 wires at cross sectional area 0.3 to 0.75 mm . Remove 15 mm of external cable protection(1) and 4 mm from the 3 wires. Crimp contacts(7) with appropriate tool. Introduce the cable-press into cable(1) in that order 2, 3, 4. Introduce the 3 wires with the contacts into the junction box. Introduce the contacts(7) in contact-support. Correct location of earth contact. Introduce contact-support(8) with the contacts(7) into junction box(5) in the required position. Pull simultaneously cable(1). Screw the cable-press(2). Introduce screw(6) in orifice(9). Mount rubber gasket on the solenoid. Introduce the connector. Screw (6).

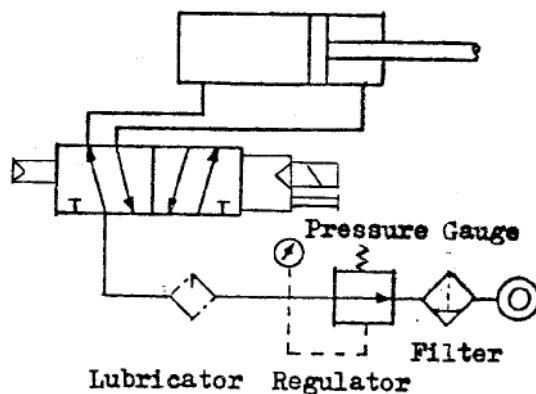


DISASSEMBLY : Unscrew cable press(2). Remove screw(6). Push contact-support (8) by means of a screw driver. Press on (9).

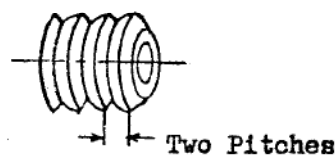
2. Insert a fuse of capacity 0.5 to 1 A for protection of electrical circuits.

3. Whenever possible, use electrical circuit switches or relays of snap action.

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.



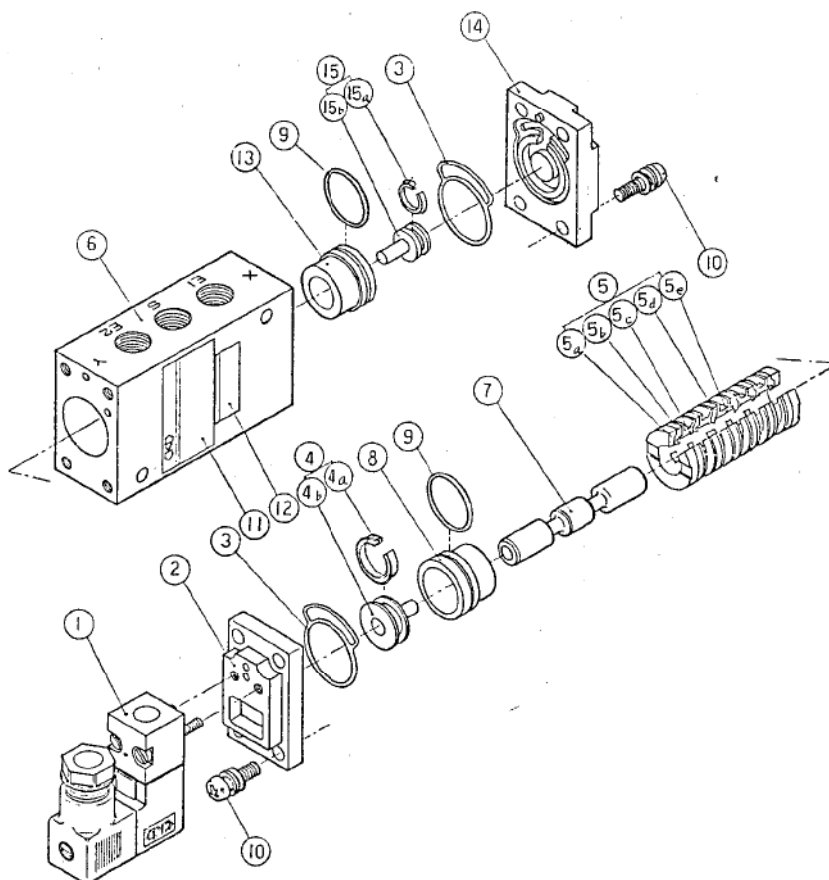
Maintenance Service

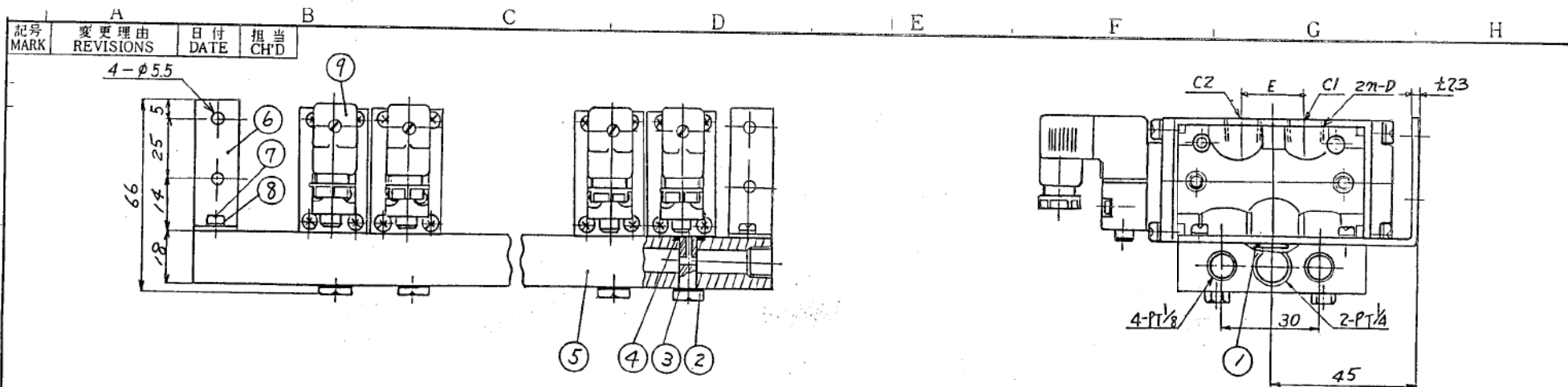
1. Disassembly of the valve

- (1) Remove the solenoid (1) which can be fixed with two set - screws (16).
- (2) Remove the mounted block (2) which can be fixed with four set-screws (10).
- (3) Remove the cap (14) which can be fixed with four set-screws (10) '.
- (4) Pull out the cylinder (13) on the side of the solenoid.
- (5) Push out the piston (15) on the side of the cap (14), thus permitting the inner assembly to be taken out from the valve body (6).

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.





*2	PIPING SIZE(D)	E	EFFECTIVE AREA
06	PS 1/8	20	11 mm ²
08	PS 1/4	22	11 mm ²

*3	MANUAL OPERATED	FORM
	NON LOCK (HORIZONTAL)	
M1	LOCK (HORIZONTAL)	
M4	NON LOCK (HORIZONTAL)	
M6	NON LOCK (UP)	

*b	COIL OPTION	FORM
B	TERMINAL BOX LANP LESS PF 1/4	
L	TERMINAL BOX LANP PF 1/4	

*c	OPTION
	NON-SURGE KILLER-PLUG-CHECK VALVE
S	SURGE KILLER
N	PLUG

9	SOLENOID VALVE		n	4F110-06/08
8	SPRING WASHER	SWRH	4	M5
7	CROSS RECESSED HEAD MACHINE SCREWS	SWRM	4	M5x10
6	BRACKET	SPCC	2	
5	SUB PLATE	AI200P	1	
4	O-RING	NBR	2n	AS568-013
3	GASKET	NBR	2n	
2	NIPPLE	SS41	2n	
1	O-RING	NBR	n	AS568-015
品番 NO.	部品名 PARTS	材質 MATERIAL	数量 Q'TY	備考 REMARK

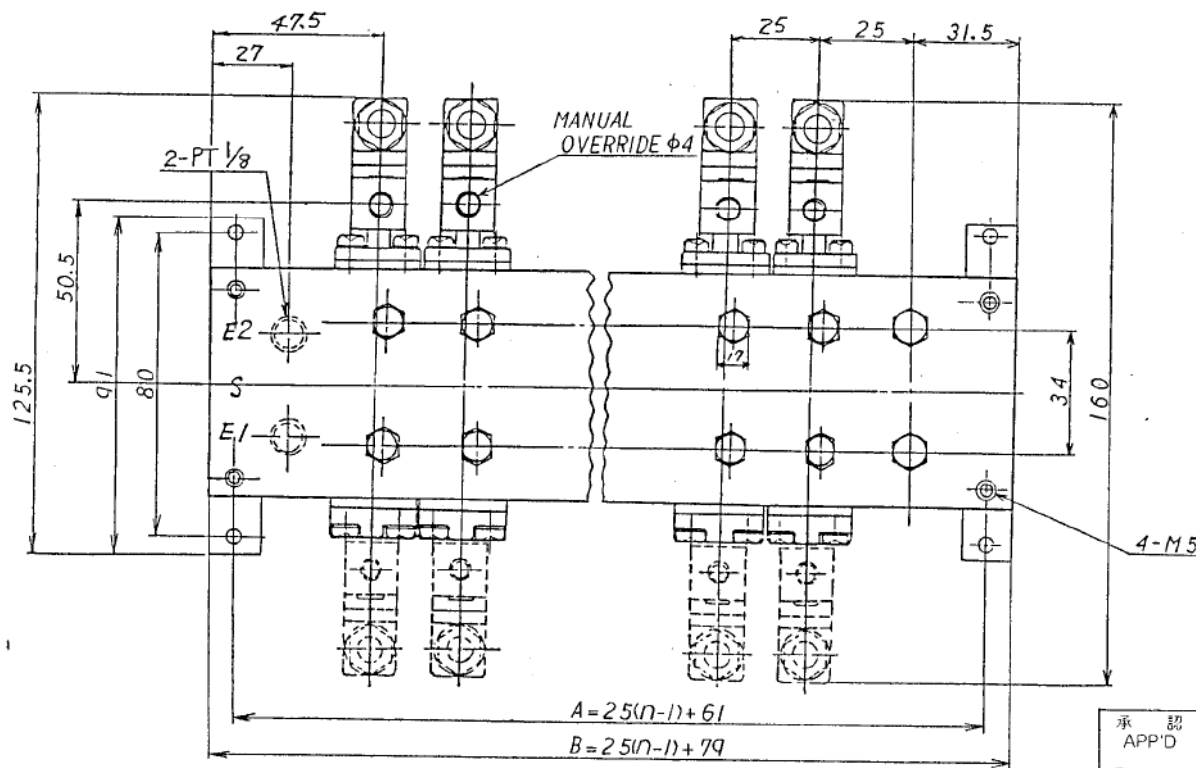
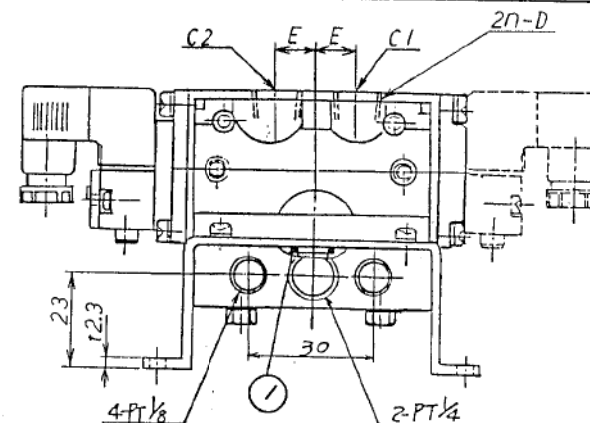
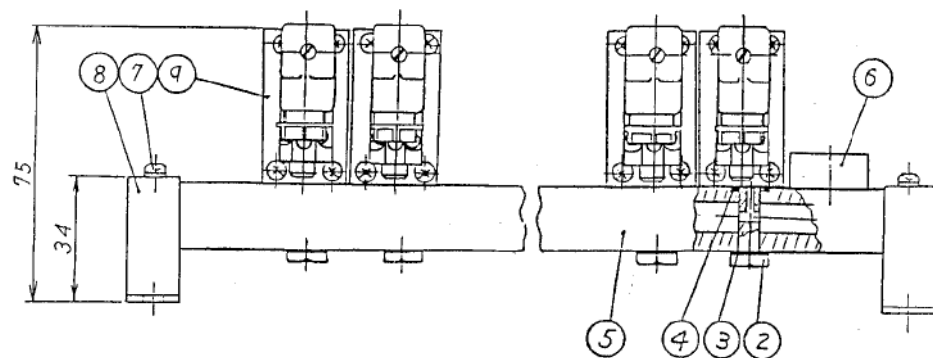
Note
⑥ BRACKET attached.
Mounting screw tightening torque : 3.0~3.5 N·m

n	2	3	4	5	6	7	8	9	10
A	86	111	136	161	186	211	236	261	286
B	104	129	154	179	204	229	254	279	304

承認 APP'D T. Iwaco	査閲 CH'D M. Jominaga	設計 DES'D Y. Shido	尺 度 SCALE NO. SCALE	仕様書 No. SPEC NO.	形 番 MODEL M4F110- <input type="text"/> - <input type="text"/> - <input type="text"/> -CL
CKD シーケーディ株式会社 CKD Corporation			DRAW NO.	F 3 - 8 1 4 7 6 1 - A	

SM-3035-A

記号 MARK	変更理由 REVISIONS	日付 DATE	担当 CH'D	TOS登録日 TOS DATE
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*a	MANUAL OPERATED	FORM
	NON LOCK (HORIZONTAL)	
M1	LOCK (HORIZONTAL)	
M4	NON LOCK (HORIZONTAL)	
M6	NON LOCK (UP)	

*b	COIL OPTION	FORM
	TERMINAL BOX LANP LESS PF 1/4	
L	TERMINAL BOX LANP PF 1/4	

*c	OPTION
	NON-SURGE KILLER-PLUG-CHECK VALVE
S	SURGE KILLER

Note
 ⑧ BRACKET attached.
 Mounting screw tightening torque : 3.0~3.5 N·m

	SOLENOID VALVE		n2	4F120-06 08
9	SOLENOID VALVE		n1	4F110-0 0
8	BRACKET	SPCC	2	
7	CROSS RECESSED HEAD MACHINE SCREWS	SWRM	4	M5X10
6	MASKING PLATE	A5052P	n3	
5	SUB PLATE	A5052P	1	
4	O-RING	NBR	2n	AS-568-013
3	GASKET	NBR	2n	
2	NIPPLE		2n	
1	O-RING	NBR	n	AS-568-015

品番 NO.	部 品 名 PARTS	材 質 MATERIAL	数量 Q'TY	備 考 REMARK
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UNITS SYMBOL	2	3	4	5	6	7	8	9	10
A	86	111	136	161	186	211	236	261	286
B	104	129	154	179	204	229	254	279	304

MODEL #2	SYMBOL	E	D
M4F110-06	10	PS 1/8	
M4F120-08	11	PS 1/4	

承認 APP'D	査 閲 CH'D	設 計 DES'D
T. Iwacoshi	M. Sonianga	Y. Shido



シーケーディ株式会社
 CKD Corporation

尺 度 SCALE	仕 様 書 No. SPEC NO.	形 番 MODEL
NO.		M4F110-06-10-PS 1/8
SCALE	DRAW NO.	
	F3-808567-4	