■ Power Amplifiers For Directional and Flow Control Valves

These power amplifiers are used to drive the proportional electro-hydraulic directional and flow control valves.

■ Model Number Designation

SK1091	-D24	-10
Series Number	Power Supply	Design Number
SK1091	**D24**: 24 V DC	10

■ Applicable to Valve

Name of Valve	Model Numbers
Directional and Flow Control Valve	EDFHG- 03 04 06

■ Specifications

Model No. Description	SK1091-D24-10
Max. Output Current	1 A (10Ω Solenoid)
Max. Input Voltage	−10 V DC for SOL a +10 V DC for SOL b
Input Impedance	10 kΩ
Max. Gain	1 A / ±5 V
Dither	Variable
Delay Time Adjustment Range	0.15-3 s
Temperature Drift (Max.)	0.2 mA /˚C
Power Supply	24 V DC (21-28 V Included Ripple)
Required Current	1.5 A or more
Power Input (Max.)	25 W
Ambient Temperature	0-50˚C (32-122˚F)
Ambient Humidity	90%RH or less
External Setting Resistance	2 kΩ
Approx. Mass	1.0 kg (2.2 lbs.)

■ Instructions

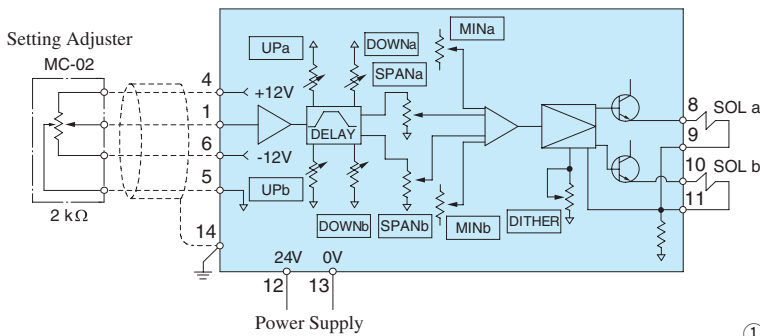● **Power Supply for the Setting Adjuster**

Power supply for the setting adjuster can be provided from this power amplifier, but for only one. However, please use the variable resistor or potentiometre of which impedance is 2 kΩ for the setting adjuster.
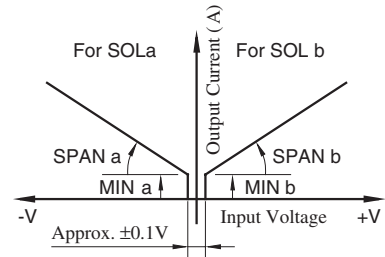
● **Power Switch**

The power amplifier has no power supply switch. As soon as it is connected to a power supply, it comes to be alive. Provide a power switch externally.
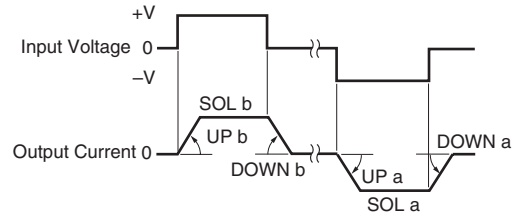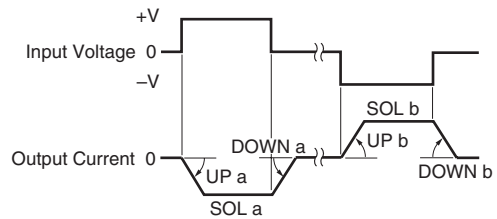
SK1091-D24-10

[Example Diagram]

Setting Adjuster
MC-02

2 kΩ

4 +12V
1
6 -12V
5

UPa
SPANa
DOWNa
MINa
DELAY
UPb
DOWNb SPANb MINb DITHER

8 SOL a
9
10 SOL b
11

14

24V 0V
12 13
Power Supply

[Input-Output Characteristics]

Output Current (A)

For SOLa   For SOL b

SPAN a   SPAN b
MIN a   MIN b
-V   Input Voltage   +V
Approx. ±0.1V

[Delay Function]

① In case "1" and "2" Input signal terminals are used.

+V
Input Voltage 0
−V

SOL b
Output Current 0   UP b   DOWN a
DOWN b   UP a
SOL a

② In case "3" and "2" Input signal terminals are used.

+V
Input Voltage 0
−V

SOL b
Output Current 0   DOWN a   UP b
UP a   DOWN b
SOL a

③ In case "1" , "2" and "3" Input signal terminals are used.

Terminal "1" – "2"   Terminal "3" – "2"
+V
Input Voltage 0

SOL b
Output Current 0   UP b   DOWN a
DOWN b   UP a
SOL a
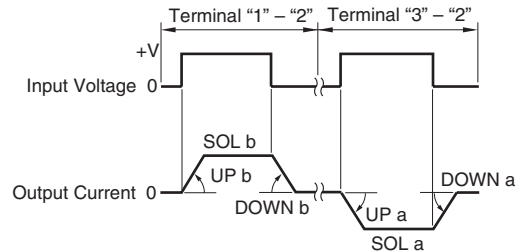
● Detail of Terminal Board

Terminal Number	Name	
1	Input Signal	IN★
2	Input Signal	COM
3	Input Signal	IN★
4	Power Supply for Setting Adjuster	+12V
5	Power Supply for Setting Adjuster	COM
6	Power Supply for Setting Adjuster	−12V
7	—	
8	Output to Valve Solenoid	SOL a
9		
10	Output to Valve Solenoid	SOL b
11		
12	Power Supply	24 V
13	Power Supply	0 V
14	Frame Ground	FG

★ Three (3) usages are available as shown ① to ③ of "Delay Function" at right hand side for Input signal terminal (IN).

Indicator Lamp
Delay Time Adjuster for SOL a

SOL a, b
Indicator Lamp

YUKEN POWER
SOLa
SOLb

UPa
DOWNa
UPb
DOWNb
SPANa
SPANb
MINa
MINb
DITHER

Delay Time Adjuster for SOL b

166(6.54)
180(7.09)

Span Adjuster

Zero-Point Adjuster

Terminal Board
(Refer to the table on the above.)

6
(.24)
48
(1.89)

Dither Adjuster

150(5.91)

10
(.39)
100
(3.94)