Power Amplifiers For 10Ω Series Control Valves

These Power amplifiers are used to drive the 10Ω series proportional electro-hydraulic pressure or flow control valves.

Specifications

Description \ Model No.	AME-D-10-※-20	SK1022-A-※-11	SK1022-B-※-11	SK1015-11
Type of Function	DC Input Type	DC Input Feedback Type	DC Input Feedback Type	DC Input Type
Max. Output Current	1 A (10 Ω solenoid)	1 A (10 Ω solenoid)	1 A (10 Ω solenoid)	0.9 A (10 Ω solenoid)
Max. input Voltage	+ 10 V DC	+ 10 V DC	+ 10 V DC	+10 V DC
Feedback Voltage	---	0 to -10 V	0 to + 10 V	---
Input Impedance	10 kΩ	50 kΩ	50 kΩ	50 kΩ
Max. Gain	1A / 5V	1A / 0.5V	1A / 0.5V	0.9A / 5V
Dither	Variable	Fix	Fix	Fix
Temperature Drift (Max.)	0.2 mA/°C	0.2 mA/°C	0.2 mA/°C	1 mA/°C
Power Supply	100 V AC, 200 V AC *	100 V AC, 200/220 V AC ± 10%		22-30 V DC
Power Input (Max.)	55 VA	45 VA	45 VA	25 VA
Ambient Temperature	0-50 °C	0-50 °C	0-50 °C	0-50 °C
External Setting Resistance	1 kΩ	1 kΩ	1 kΩ	10 kΩ
Mass	2.1 Kg.	4.5 Kg.	4.5 Kg.	0.4 Kg.

* Serviceable Range; 100 V AC can be used from 90 to 132 V AC, 200 V AC can be used from 180 to 264 V AC.

Model Number Designation

AME	-D	-10	-100	-20
Series Number	Type of function	Coil Resistance Of Valve	Power Supply	Design Number
AME	**D:** DC Input Type	**10:**10Ω	**100:** 100 V AC **200:** 200 V AC	**20**

SK1022	-A	-100	-11
Series Number	Type of function	Power Supply	Design Number
SK1022: DC Input –Feedback Type	**A:** Polarity of Feedback Voltage … (-) **B:** Polarity of Feedback Voltage … (+)	**100:** 100 V AC **200:** 200/220 V AC	**11**
SK 1015: DC Input Type for DC Power Supply	_____	_____ *	**11**

* Use with 24 V DC since this is for a battery power supply.

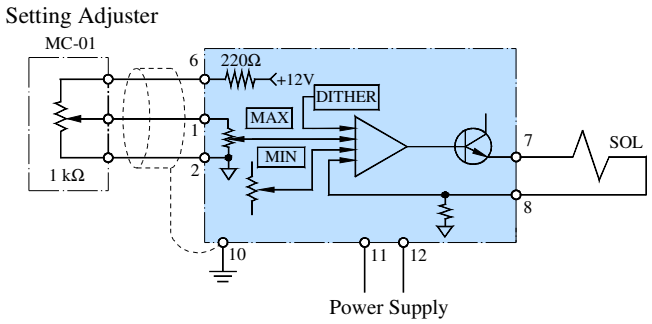
Instructions

Power supply for the setting adjuster can be provided from this power amplifier, but for only one. However, please use the variable resistor or potentiometer of which impedance is 1kΩ (in case of model SK1015, use 10kΩ) for setting adjuster.

Note: Consult YUKEN for dimensional and other details.

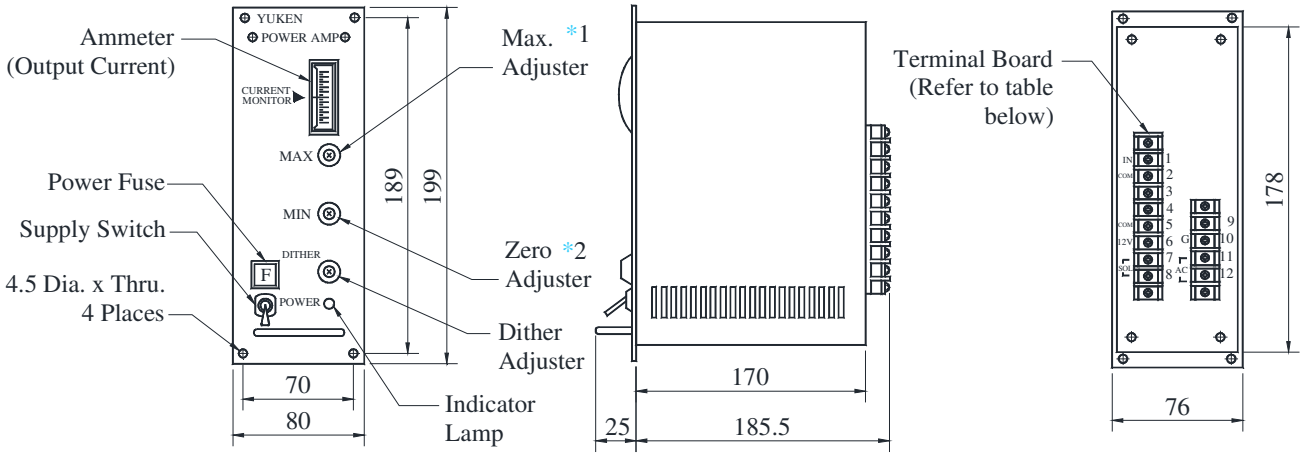
AME-D-10-※-20

[Example Diagram]



Detail of Terminal Board

Terminal Number	Name	
1	Input Signal	IN
2	Input Signal	COM
3	—	
4	—	
5	Input Signal	COM
6	Internal Power Supply	+12 V
7	Output to Valve Solenoid	SOL
8		
9	—	
10	Ground	G
11	Power Supply 100/200 V AC	
12		

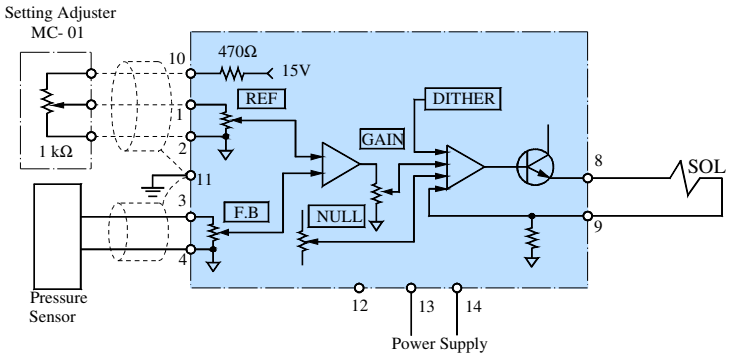


*1 Adjustment of upper limit of usable range
*2 Adjustment of lower limit of usable range

DIMENSIONS IN MILLIMETRES

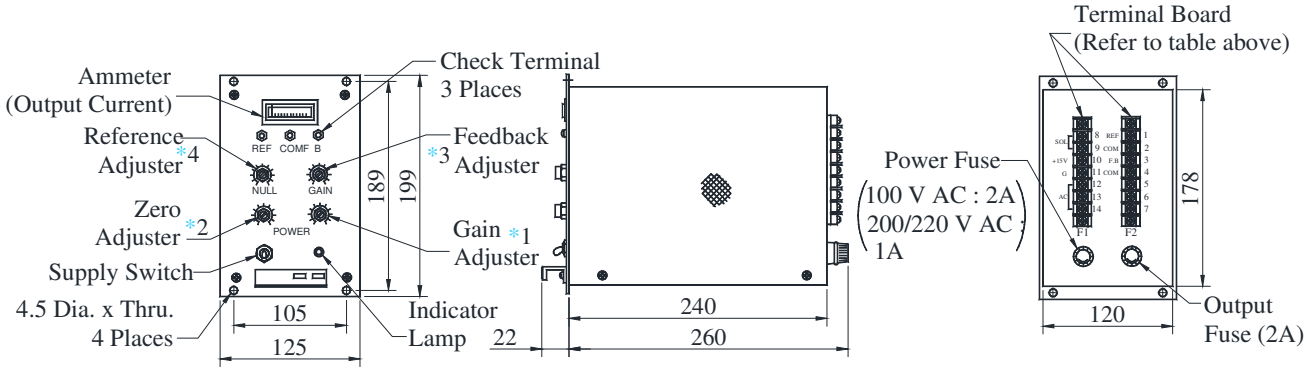
SK1022-$\frac{A}{B}$-※-11

[Example Diagram]



Detail of Terminal Board

Terminal Number	Name	
1	Input Signal	REF
2	Input Signal	COM
3	Feedback Signal	F.B.
4	Feedback Signal	COM
5	—	
6	—	
7	—	
8	Output to Valve Solenoid	SOL
9		
10	Power Supply for Setting Adjuster (10 V at 1 KΩ)	
11	Ground	G
12	Power Supply 100 V AC, 200 V AC : 13 , 14 220 V AC : 12 , 14	

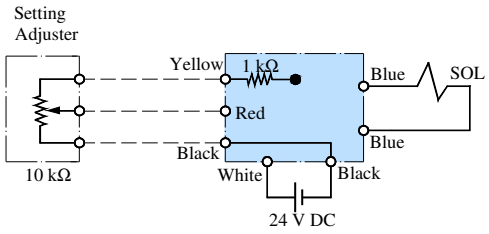


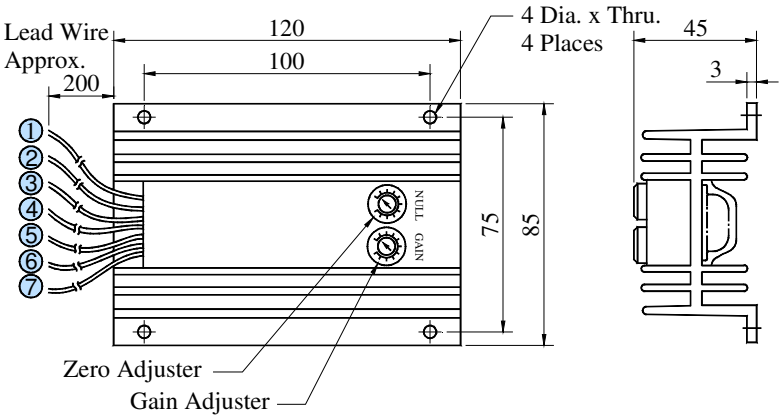
*1 Adjustment of upper limit of usable range
*2 Adjustment of lower limit of usable range
*3 Adjustment of feedback voltage ratio
*4 Adjustment of input voltage ratio

DIMENSIONS IN MILLIMETRES

SK1015-11

[Example Diagram]





Lead Wire Detail

① White ..... Plus of 24 V DC
② Black ..... Zero of 24 V DC
③ Blue .....
④ Blue ..... } Output To Valve Solenoid
⑤ Yellow ..... 15 V Power Supply for setting Adjuster (10 V at 10 KΩ)
⑥ Red ..... Input Signal
⑦ Black ..... Zero of Input Signal

DIMENSIONS IN MILLIMETRES

Instructions

Supply 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.

Compact Power Amplifiers For 10Ω Series Control Valves

Compact power amplifiers for 10 Ω proportional solenoids. The power supply is 24 V DC. It uses a new circuitry to be slow to heat.

Specifications

Description \ Model No.	AMN-D-10
Type of Function	DC Input Type
Max. Output Current	1 A (10 Ω solenoid)
Power Input (Max.)	+ 10 V DC
Input Impedance	10 kΩ
Max. Gain	1A / 5V
Dither	Variable
Temperature Drift (Max.)	0.2 mA/°C
Power Supply	24 V DC (20-30 V DC)
Max. Power Input	25 W
Ambient Temperature	0-50 °C
External Setting Resistance	1 kΩ
Approx. Mass	0.2 Kg

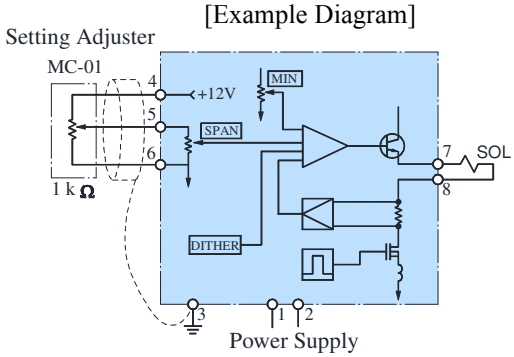
Model Number Designation

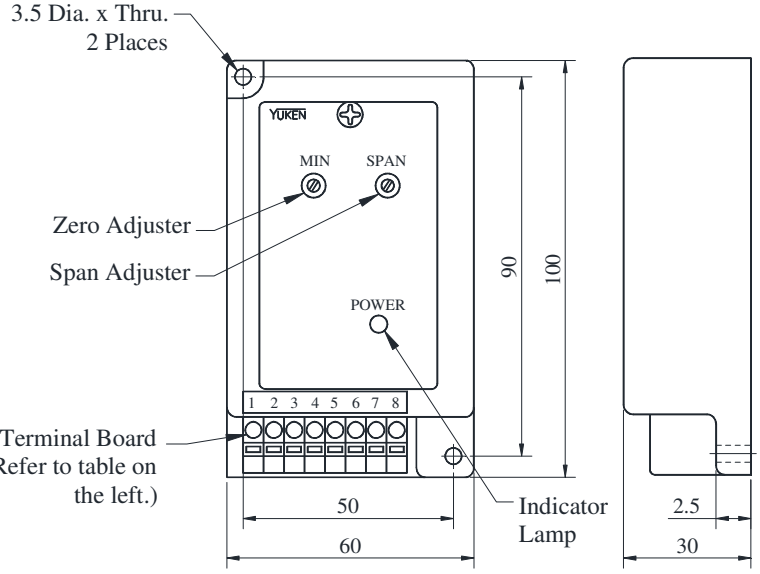
AMN	-D	-10
Series Number	Type of function	Design Number
AMN	**D:** DC Input Type	**10**

AMN-D-10

DIMENSIONS IN MILLIMETRES

[Example Diagram]





Detail of Terminal Board

Terminal Number	Name	
1	Power Supply	+24 V
2	Power Supply	0 V
3	Ground	G
4	Internal Power Supply	+12 V
5	Input Signal	IN
6	Input Signal	COM
7	Output to Valve Solenoid	SOL
8		

Power Amplifiers For 40Ω Series Flow Control Valves

These power amplifiers are used to drive the 40Ω series proportional electro-hydraulic flow control valves.

Specifications

Description \ Model No.	AME-D-40-※-40	AME-DF-S-※-22	AME-T-S-※-22
Type of Function	DC Input Type	DC Input Feedback Type	Slow Up Down Type
Max. Output Current	0.8 A (40 Ω Solenoid)	0.8 A (40 Ω Solenoid)	0.8 A (40 Ω Solenoid)
Max. Input Voltage	+ 10 V DC	+ 10 V DC	---
Feedback Voltage	---	0-10 V	---
Input Impedance	10 kΩ	50 kΩ	
Slow Up Down Range	---	---	0.05-1 s/100mA
Max. Gain	0.8A / 5V	0.8A / 5V	---
Dither	Fix	Fix	Fix
Temperature Drift (Max.)	0.2 mA/˚C	0.2 mA/˚C	0.2 mA/˚C
Power Supply	100 V AC, 200/220 V AC ±10%		
Power Input (Max.)	70 VA	90 VA	90 VA
Ambient Temperature	0-50 ˚C	0-50 ˚C	0-50 ˚C
External Setting Resistance	1 kΩ	1 kΩ	---
Approx. Mass	2.8 Kg	4.5 Kg	4.5 Kg

Model Number Designation

AME	-D	-40	-100	-40
Series Number	Type of function	Coil Resistance of Valve	Power Supply	Design Number
AME	**D:** DC Input Type	**40:** 40Ω	**100:** 100 V AC **200:** 200 V AC	**40**

AME	-DF	-S	-100	-22
Series Number	Type of function	Type of Mounting	Power Supply	Design Number
AME	**DF:** DC Input Feedback Type	**S:** Panel Mounting Type	**100:** 100 V AC	**22**
	T: Slow Up Down Type		**200:** 200 V AC	**22**

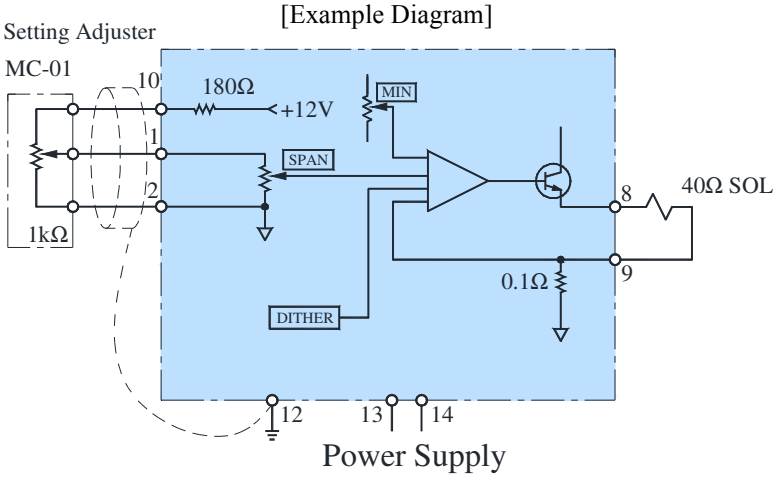
Instructions

- **Power supply for the outside setting adjuster**

When DC input type (AME-D-40) or DC input-feedback type (AME-DF-S) power amplifier is used, power supply for the setting adjuster can be provided from this power amplifier, but for only one. However, please use the variable resistor or potentiometer of which impedance is 1 kΩ for the setting adjuster.

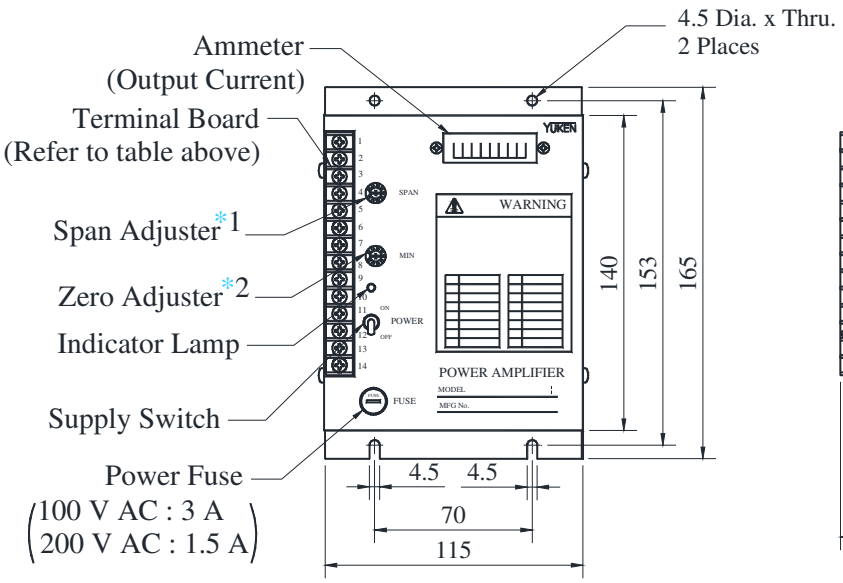
AME-D-40-※-40

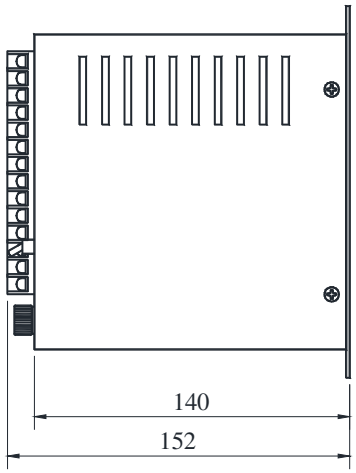
[Example Diagram]



Detail of Terminal Board

Terminal Number	Name	
1	Input Signal	IN
2	Input Signal	COM
3	—	
4	—	
5	Internal Power Supply	-5 V
6	Feedback Signal	MFB
7		COM
8	Output to Valve	
9	Solenoid	SOL
10	Internal Power Supply	+12 V
11	—	
12	Frame Ground	FG
13	Power Supply	VAC
14		VAC



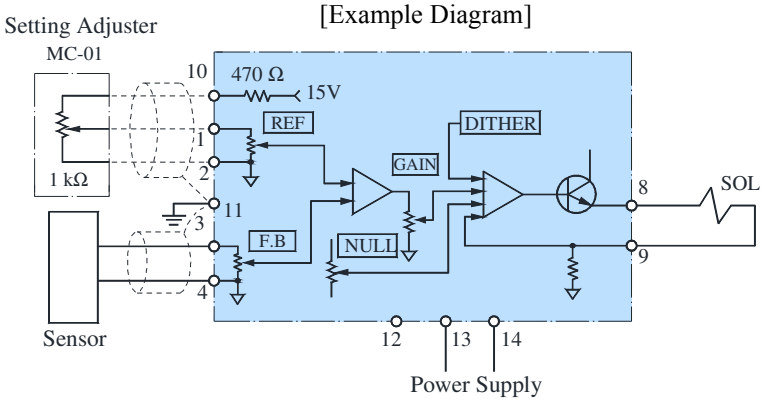


*1 Adjustment of upper limit of usable range
*2 Adjustment of lower limit of usable range

DIMENSIONS IN MILLIMETRES

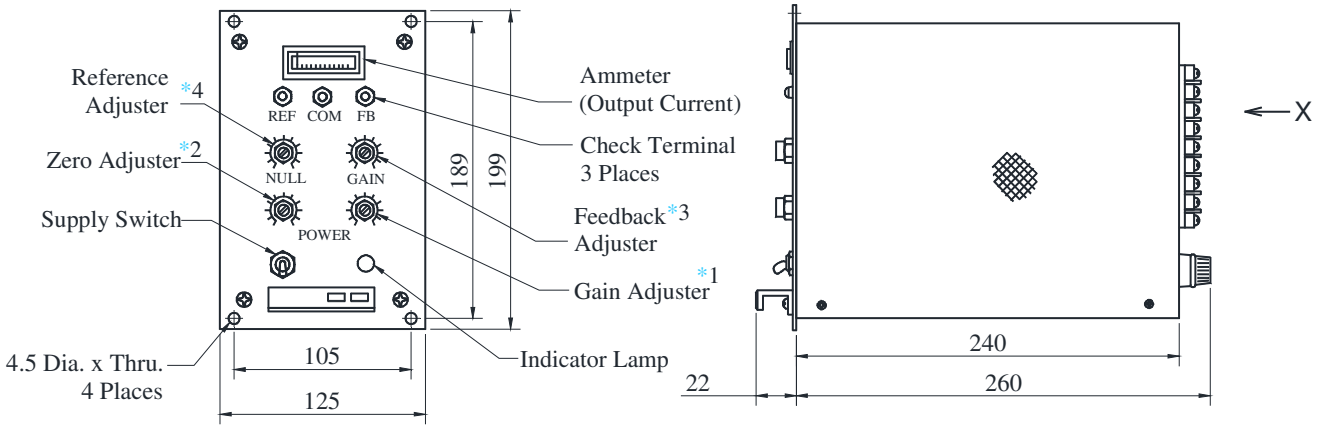
AME-DF-S-※-22

[Example Diagram]

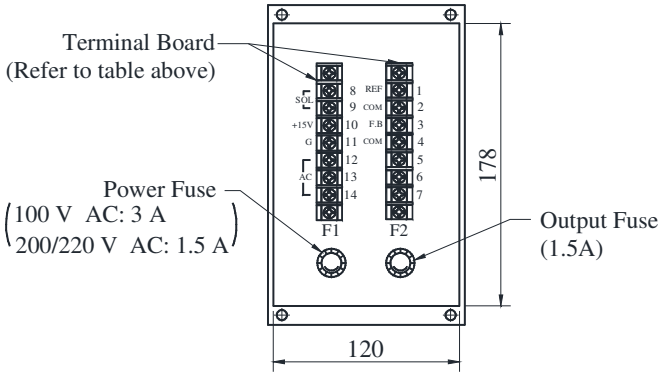


Detail of Terminal Board

Terminal Number	Name	
1	Input Signal	REF
2	Input Signal	COM
3	Feedback Signal	F.B.
4	Feedback Signal	COM
5	–	
6	–	
7	–	
8	Output to Valve Solenoid	SOL
9		
10	Power Supply for Setting Adjuster (10 V at 1 KΩ)	+15 V
11	Ground	G
12	Power Supply 100 V AC, 200 V AC : 13 , 14 220 V AC : 12 , 14	
13		
14		



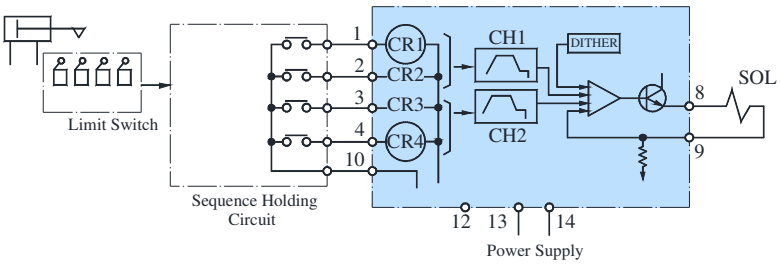
*1 Adjustment of upper limit of usable range
*2 Adjustment of lower limit of usable range
*3 Adjustment of feedback voltage ratio
*4 Adjustment of input voltage ratio



DIMENSIONS IN MILLIMETRES

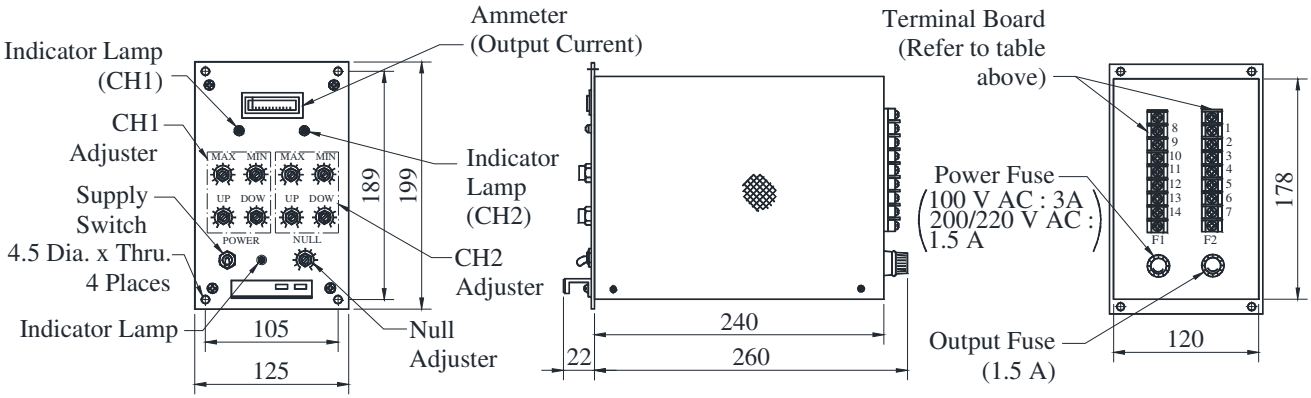
AME-T-S-※-22

[Example Diagram]

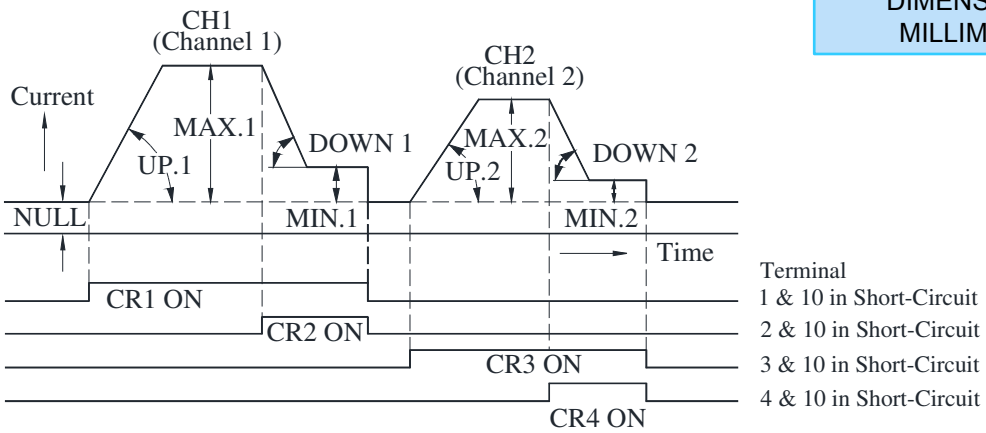


Detail of Terminal Board

Terminal Number	Name	
1	Input Command	CR1
2	Input Command	CR2
3	Input Command	CR3
4	Input Command	CR4
5	—	
6	—	
7	—	
8	Output to Valve Solenoid	SOL
9		
10	Input Command	CR.COM
11	Ground	G
12	Power Supply 100 V AC, 200 V AC : 13 , 14 220 V AC : 12 , 14	
13		
14		



[Output Current Pattern]



DIMENSIONS IN MILLIMETRES

Note : 1. CR1 to CR4 : Relays in the power amplifier.
The output patterns CH1 and CH2 can not be obtained simultaneously nor can they can be transmitted halfway to another pattern.
2. The words such as MAX, MIN, UP and DOWN show the volume adjustment of the power amplifier.

How to Calculate Accelerating and Decelerating Time (Example)

Question : Wish to accelerate and decelerate the actuator in between 5 L/min. and 25 L/min. in the use of proportional flow control valve model EFG-02-30-31※.
In such case, what are the maximum and minimum time adjustable for the acceleration and deceleration?

Answer : The input current for EFG-02-30-31※ at the flow rate of 5 L/min. and 25 L/min. can be obtained respectively from the chart below. The chart shows :

Input current at 5 L/min. 300mA
Input current at 25 L/min. 520mA

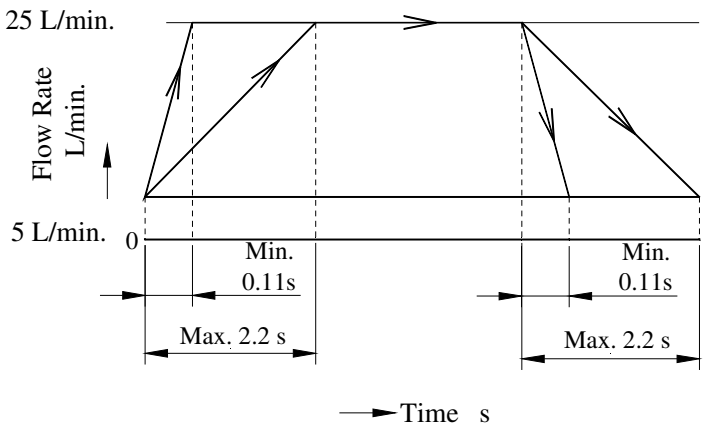
Then, the difference between the above two can be obtained with the following formula :
520 mA -300 mA = 220 mA
While, the specification for the model AME-T-S shows the amplifier's gradient for acceleration or deceleration as being between 0.05 s/100 mA and 1.0 s/100 mA (which means that the minimum time is 0.05 seconds and the maximum time is 1.0 second for every 100 mA variation).
Therefore, the minimum and maximum adjustable time can be obtained as follows :

$$\frac{220\ mA}{100\ mA} \times 0.05\ seconds = 0.11\ (Minimum)$$

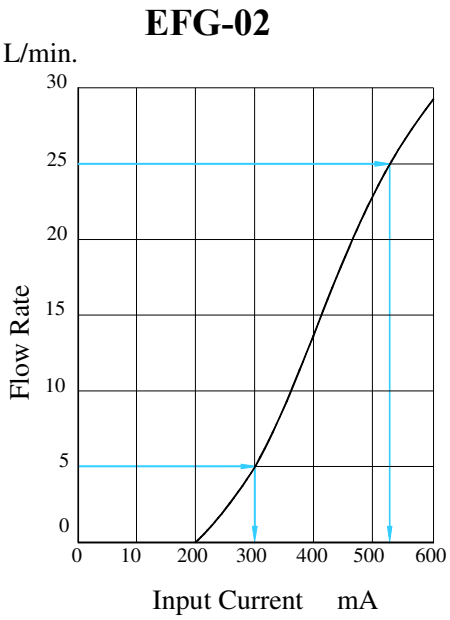
$$\frac{220\ mA}{100\ mA} \times 1.0\ seconds = 2.2\ second\ (Maximum)$$

The result above are as illustrated on the below :

[Flow Pattern]



[Input Current vs. Flow]



Interchangeability in Installation Current and New Design

Specification

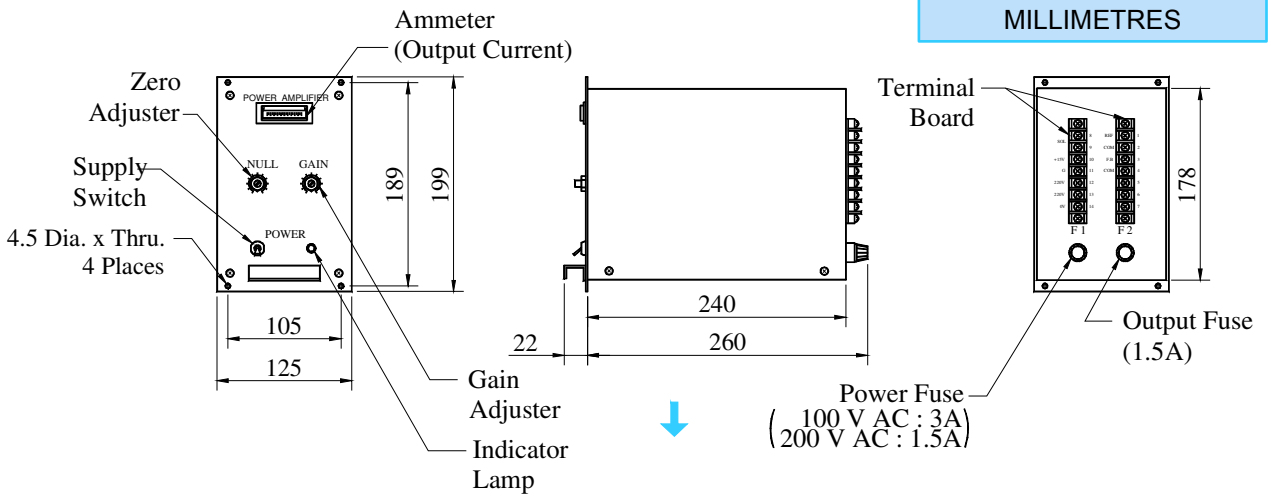
Electricity consumption is different by Current and New design.
The other specifications remain unchanged.

Electricity Consumption	
Current : 32 Design	New : 40 Deign
90 VA	70 VA

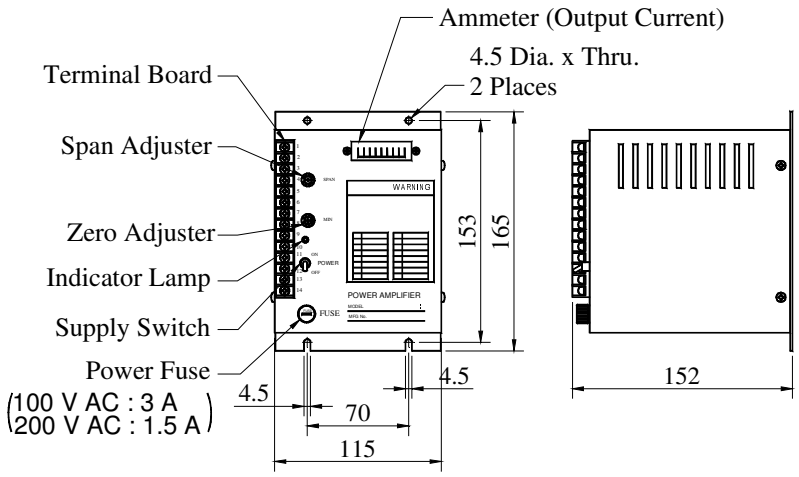
Installation Interchangeability : None

AME-D-S-※-32

DIMENSIONS IN MILLIMETRES



AME-D-40-※-40



Power Amplifiers
For Shockless Type Directional and Flow Control Valves

These power amplifiers are used to drive the shockless type directional and flow control valves.

Specifications

Description \ Model No.	AMN-W-10
Max. Output Current	1.3A (10Ω Solenoid)
Max. Input Voltage	- 10 V DC: SOL a + 10 V DC: SOL b
Input Impedance	10 kΩ
Maximum Gain	1.3 A/-5 V: SOL a 1.3 A/+5 V: SOL b
Dither	Variable (Internal)
Delay Time Adjustment Range	0.1-3 s
Temperature Drift (Max.)	0.2 mA/°C
Power Supply	24 V DC (Power Supply Range : 20-30 V)
Power Input	25 W
Ambient Temperature	0-50 °C
Ambient Humidity	90% RH or less
Approx. Mass	0.2 Kg

Model Number Designation

AMN	-W	-10
Series Number	Type of function	Design Number
AMN	**W:** DC Input Type	**10**

Instructions

- **Power supply for the outside setting adjuster**

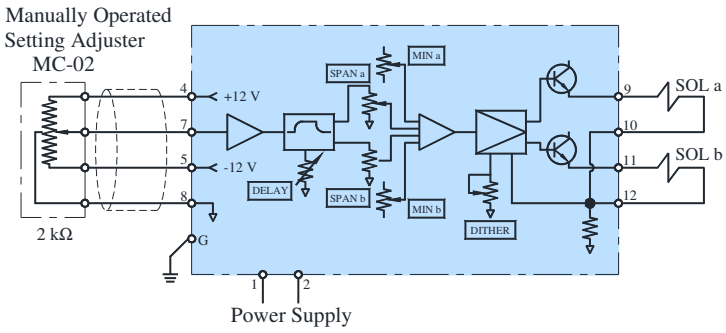
  When DC input type (AMN-W) power amplifier is used, power supply for the setting adjuster can be provided from this power amplifier, but for only one. However, please use the variable resistor or potentiometer of which impedance is 1 kΩ for the setting adjuster.

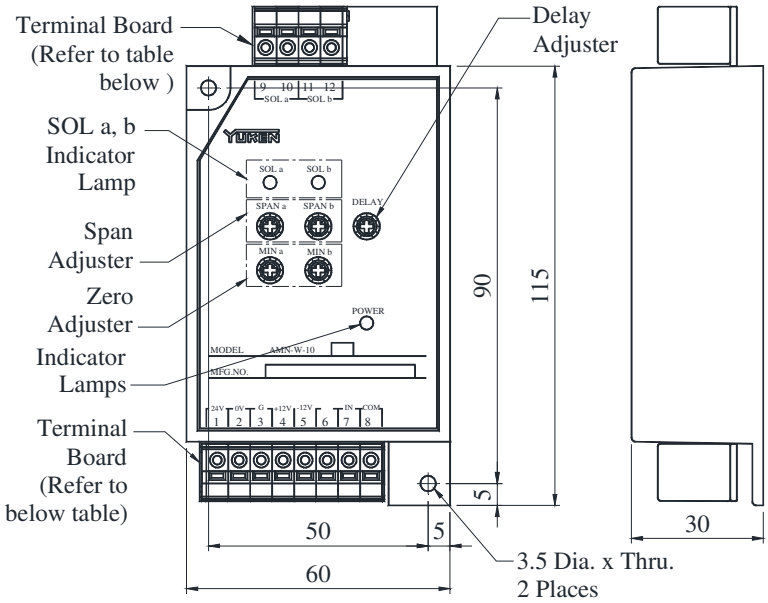
- **Supply Switch**

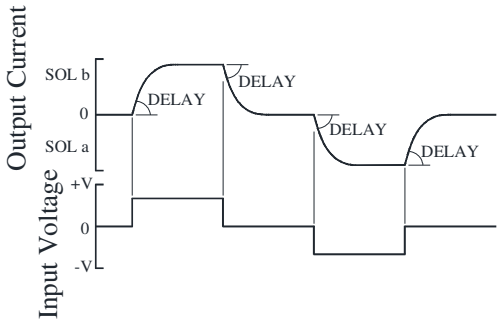
  The power amplifier has no power supply switch. As soon as it is connected to a power supply, it comes to be alive. Provide a power switch externally.

AMN-W-10

[Example Diagram]







DIMENSIONS IN MILLIMETRES

Detail of Terminal Board

Terminal Number	Name		Terminal Number	Name	
1	Power Supply	+24 V	7	Input Signal	IN
2	Power Supply	0 V	8	Input Signal	COM
3	Ground	G	9	Output to Valve Solenoid	SOL a
4	Internal Power Supply	+12 V	10		
5	Internal Power Supply	-12 V	11	Output to Valve Solenoid	SOL b
6	—		12		

Power Amplifiers For 10Ω - 10Ω Series Control Valves

These power amplifiers can drive two solenoid of 10Ω load simultaneously or separately, and the control can be done in the same way even though the object is separated by pressure system and flow rate system. Although the display of control unit on the front panel is PRESS and FLOW , they are exactly the same circuit, so there is no direction between the two system when used.

Specifications

Model No. / Description	AME-D2-1010-11
Type of Function	DC Input Type
Max. Output Current	1 A (10 Ω solenoid)
Power Input (Max.)	+ 10 V DC
Input Impedance	10 kΩ
Max. Gain	1A / 5V
Dither	Variable 100-300 mA
Temperature Drift (Max.)	0.2 mA/˚C
Power Supply	85 – 264 V AC
Power Input (Max.)	120 VA
Ambient Temperature	0-50 ˚C
External Setting Resistance	1 kΩ
Approx. Mass	4.3 Kg

Model Number Designation

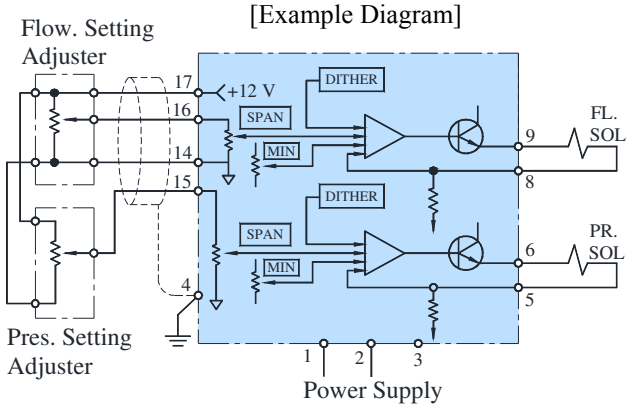
AME	-D2	-1010	-11
Series Number	Type of function	Coil Resistance of Valve	Design Number
AME	**D2:** DC Input Type	**1010:** 10Ω x 2	**11**

Instructions

Power supply for the setting adjuster can be provided from this power amplifier.
However, please use the variable resistor or potentiometer of which impedance is 1kΩ for setting adjuster.

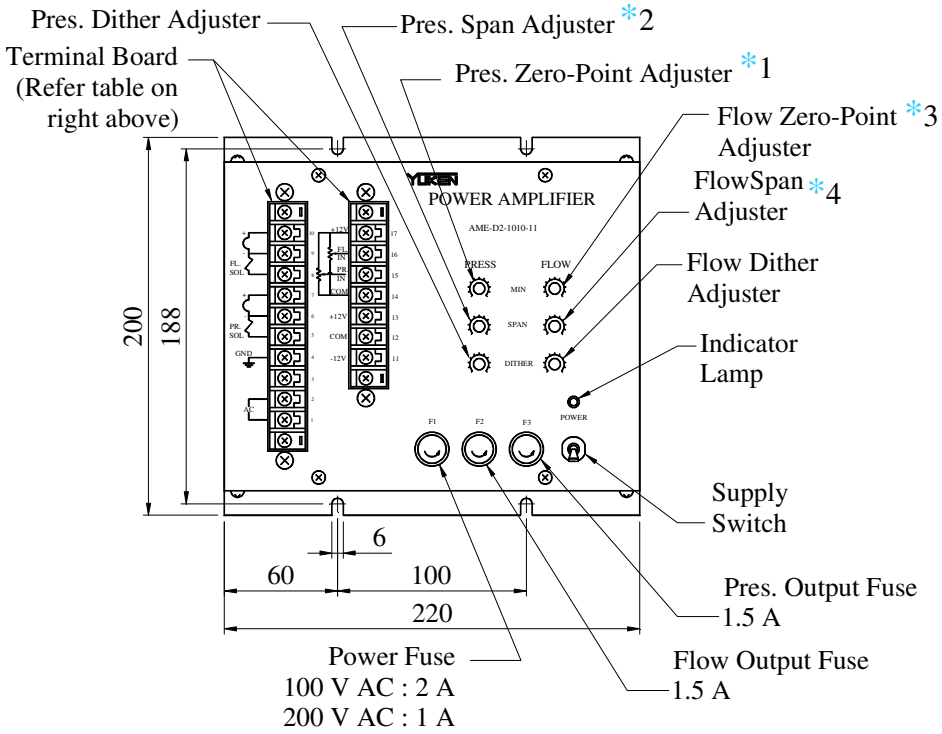
AME-D2-1010-11

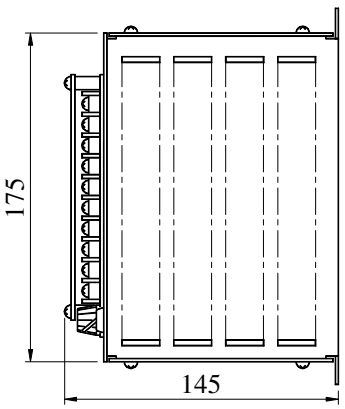
[Example Diagram]



Detail of Terminal Board

Terminal Number	Name	
1	Power Supply 85-264 V AC	
2		
3	—	
4	Ground	G
5	Output to Pressure Control Valve Solenoid	PR.SOL
6		
7	Ammeter	
8	Output to Flow Control Valve Solenoid	FL.SOL
9		
10	Ammeter	
11	-12 V OUT	-12 V
12	Common	COM
13	+12 V OUT	+12 V
14	Common	COM
15	Input Signal for PRES.	PR.IN
16	Input Signal for FLOW	FL.IN
17	+12 V OUT	+ 12 V





DIMENSIONS IN MILLIMETRES

*1 Minimum pressure setting.
*2 Variable pressure range setting.
*3 Minimum flow setting.
*4 Variable flow range setting.

Power Amplifiers

For High Response Type Directional Flow Control Valves

The power amplifiers are used to drive the high response type proportional electro-hydraulic directional and flow control valves.
A compact AMN-L modl and a euro card type AMB-EL model are available.
The single height [3U: 100x160 mm] is employed for the euro card size of the AMB-EL model.

AMN-L

AMB-EL

Specifications

Model No. / Description	AMN-L-01-1	AMN-L-01-3-2P	AMB-EL-01	AMB-EL-03	AMB-EL-04	AMB-EL-06
Max. Output Current	2.5 A (3.9 Ω Solenoid)		2.5 A (3.9 Ω Solenoid)	2.5 A (3.9 Ω Solenoid)	2.5 A (3.9 Ω Solenoid)	
Max. Input Voltage	+ 10 V DC: P ⟶ B ⟶ A ⟶ T - 10 V DC: P ⟶ B ⟶ A ⟶ T		± 10 V / ± 5 V			
Input Impedance	10 kΩ or more		100 kΩ (50 kΩ in single-end mode)			
Slope-off input	Terminal Number 13-14 Short	---	4 – 28 V			
Slope Adjust Time	0.03 – 5 s	---	0.05–5 s (Slope Adjustment function is not available with "AMB-EL-※-2P")			
Monitor Voltage	± 1.5 V / ± 3 mm st.		± 10 V / rated st.			
Alarm	Open Collector (30 V DC, 10 mA Max.)		Open Collector (30 V DC, 10 mA Max.)			
Supply Voltage Range	24 V DC (20 – 30 V DC)		24 V DC (21 – 28 V DC)			
Power Input (Max.)	75 W		30 W	40 W	30 W	
Ambient Temperature	0 – 50 °C		0 – 50 °C			
Ambient Humidity	90 % RH or less		85 % RH or less			
Connector	---		DIN 41612 – F32			
Approx. Mass	0.3 Kg.		0.28 Kg.		0.34 Kg.	

Model Number Designation

AMN-L

AMN	-L	-01	-3	-2P	-10
Series Number	Type of function	Size of Applicable Valve	Compensation	Applicable Spool Type	Design Number
AMN	**L:** DC Input Type Directional and Flow Control with Miner Feedback	**01:** 01 Size	**1:** Type 1	**None:** 3C2, 3C40	10
			3: Type 3	**2P:** 3C2P	

AMB-EL

AMB	-EL	-03	-2P	-1	-10
Series Number	Type of function	Size of Applicable Valve	Applicable Spool Type	Compensation	Design Number
AMB	**EL:** DC Input Type Directional and Flow Control with Miner Feedback	**01:** 01 Size	**None:** 3C2, 3C40	*1	20
		03: 03 Size		**1:** For flow rate 40/80 L/min.	
		04: 04 Size		**2:** For flow rate 280 L/min.	
		06: 06 Size	**2P:** 3C2P	**3:** For flow rate 350 L/min. **4:** For flow rate 500 L/min.	

* 1. Consult YUKEN.

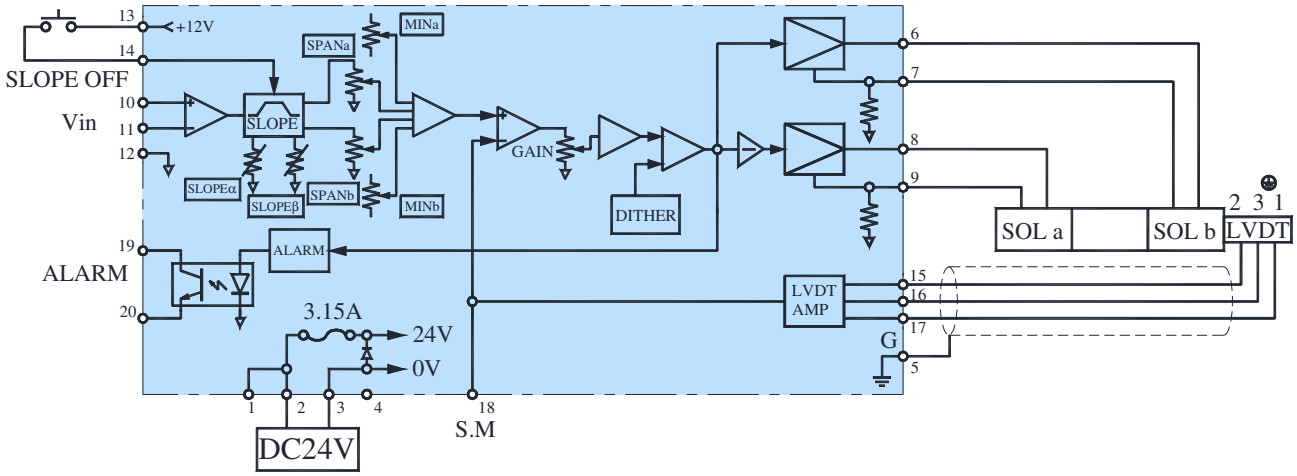
Instructions

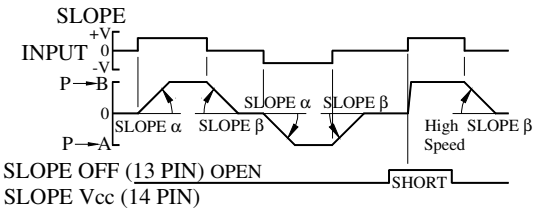
Power Switch

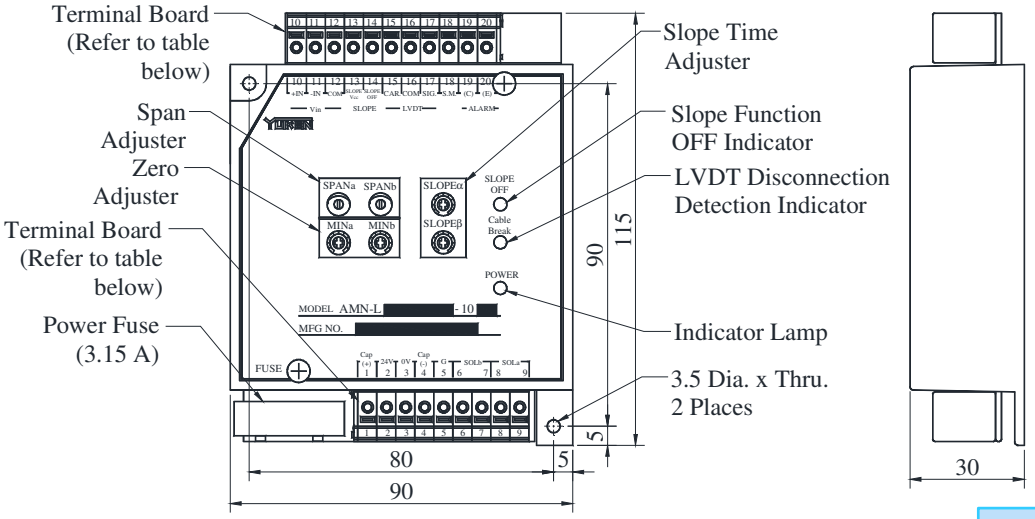
The power amplifier has no power supply switch. As soon as it is connected to a power supply, it comes to be alive. Provide a power switch externally.

AMN-L-01-1-10

[Example Diagram]







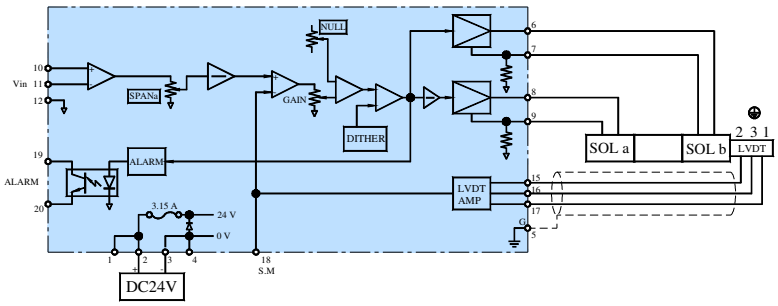
DIMENSIONS IN MILLIMETRES

Detail of Terminal Board

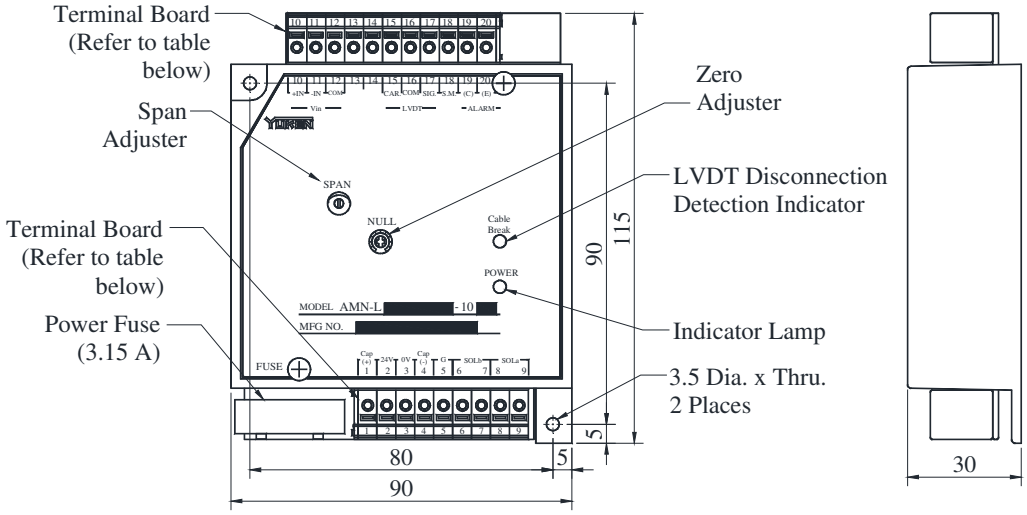
Terminal Number	Name	Terminal Number	Name
1	Power Supply CAPACITOR (+)	11	Input Signal -IN
2	Power Supply +24 V	12	Input Signal COM
3	Power Supply 0 V	13	Slope Control ON/OFF Terminal SLOPE Vcc
4	Power Supply CAPACITOR (-)	14	Slope Control ON/OFF Terminal SLOPE OFF
5	Frame Ground G	15	LVDT Terminal CAR.
6	Output to Valve	16	LVDT Terminal COM
7	Solenoid SOL b	17	LVDT Terminal SIG.
8	Output to Valve	18	Senior Monitor Output S.M
9	Solenoid SOL a	19	Alarm Output ALM(C)
10	Input Signal +IN	20	Alarm Output ALM(E)

AMN-L-01-3-2P-10

[Example Diagram]



DIMENSIONS IN MILLIMETRES



Detail of Terminal Board

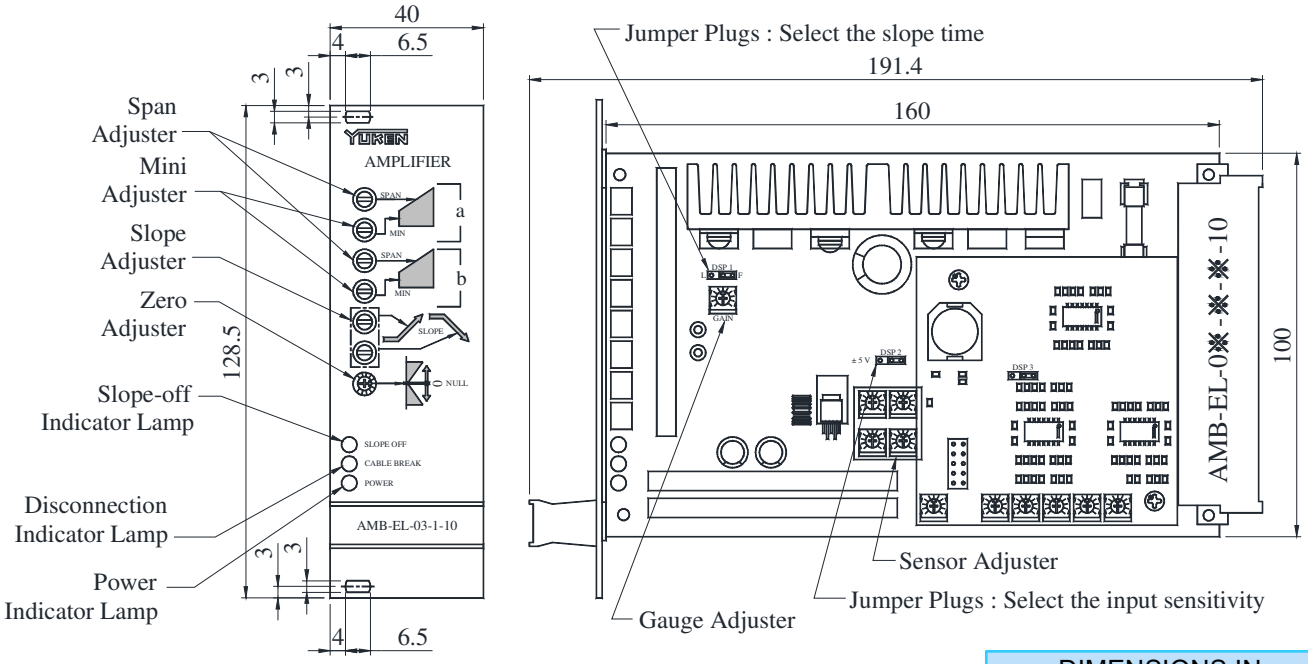
Terminal Number	Name		Terminal Number	Name	
1	Power Supply	CAPACITOR (+)	11	Input Signal	-IN
2	Power Supply	+24 V	12	Input Signal	COM
3	Power Supply	0 V	13	—	
4	Power Supply	CAPACITOR (-)	14	—	
5	Frame Ground	G	15	LVDT Terminal	CAR.
6	Output to Valve		16	LVDT Terminal	COM
7	Solenoid	SOL b	17	LVDT Terminal	SIG.
8	Output to Valve		18	Senior Monitor Output	S.M
9	Solenoid	SOL a	19	Alarm Output	ALM(C)
10	Input Signal	+IN	20	Alarm Output	ALM(E)

AMB-EL-※-※-※-10

Detail of Terminal Board

Pin Number	Name		Pin Number	Name	
b02	Power Supply 0 V		z02	Sol a (+)	
b04	Power Supply 0 V		z04	Sol a (-)	
b06	Sol b (+)		z06	—	
b08	Sol b (-)		z08	—	
b10	—		z10	Command Input (+)	
b12	—		z12	Command Input (-)	
b14	COM		z14		
b16	Power Supply +24 V		z16	COM (No. 2)	Connected to main valve sensor. See "Sensor connection".
b18	Power Supply +24 V		z18	Carrier (No. 3)	
b20	Slope Off		z20	Signal (No. 1)	
b22	COM (No. 3)	Connected to pilot valve sensor. See "Sensor connection".	z22		
b24	Signal (No. 1)		z24	Alarm Output (-)	
b26	Carrier (No. 2)		z26	Alarm Output (+)	
b28	Output 24 V		z28	Stroke Monitor Signal (P)	
b30	Output 24 V		z30	Stroke Monitor Signal (S)	
b32	FG		z32	—	

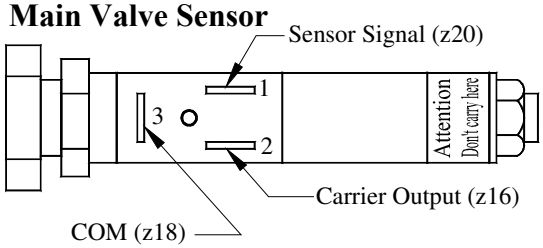
This power amplifier requires connector cards for connection. A connector card attached model is also available. Please ask for details if interested.



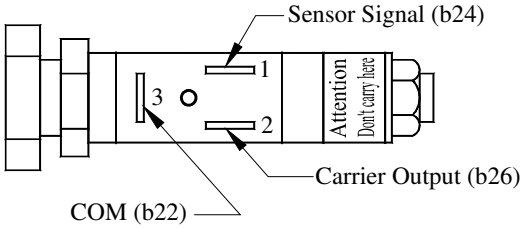
DIMENSIONS IN MILLIMETRES

Sensor Connection

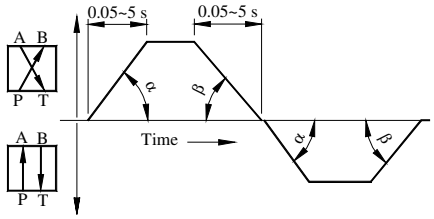
Main Valve Sensor



Pilot Valve Sensor

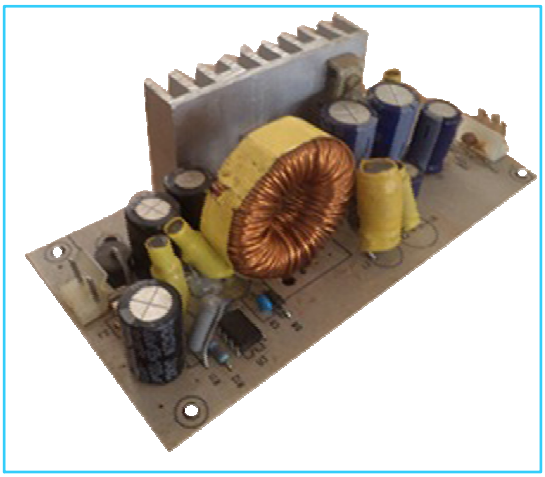


Lamp Pattern

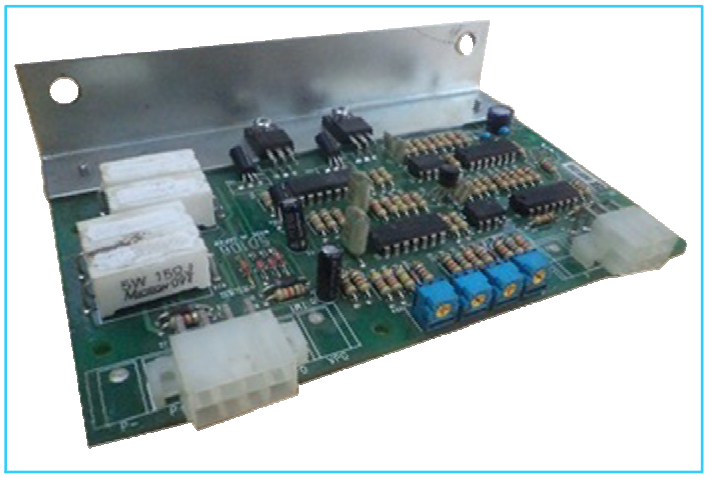


Power Amplifiers
For Proportional Pressure and Flow Control Valves

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



Power Card



Amplifier Card

Specifications

Model No. / Description	PW100-H11	PW100-W-H11
No. of Channels	2	2
Max. Output Current	1 A	1 A
Min. Input Voltage	0.05 A	0.05 A
Input Impedance	10 K	10 K
Dither	160 Hz	160 Hz
Power Supply	DC 24 V	DC 12 V, DC 48V

Model Number Designation

PW100-※-H11

PW100	-W	-H11
Series Number	Power Supply	Design Number *
PW100	**None** : With Power Supply **W** : Without Power Supply	**H11**

* Design numbers subject to change from H10 to H19, but installation dimensions remain as shown.

Note:

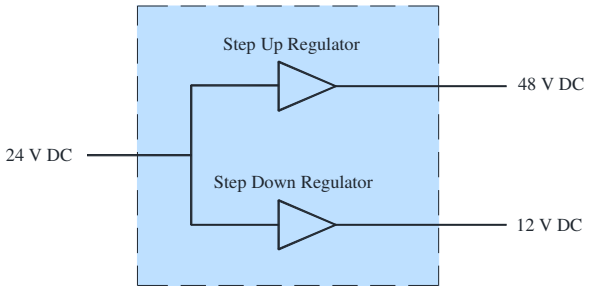
The power amplifier PW100-H11 is with Amplifier Card, Power Supply Card, 6-Pin and 8-Pin cables with connector.

The power amplifier PW100-W-H11 is with Amplifier Card and 6-Pin and 8-Pin cables with connector.

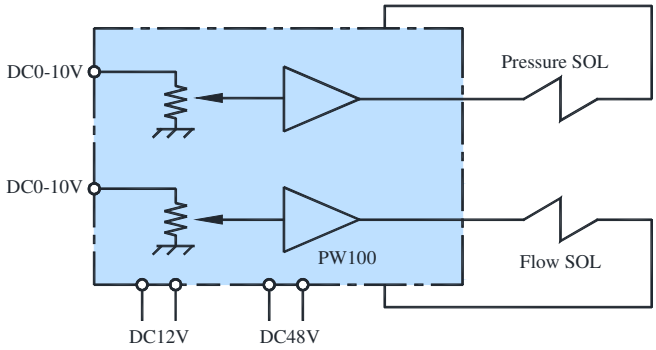
PW100-※-H11

[Example Diagram]

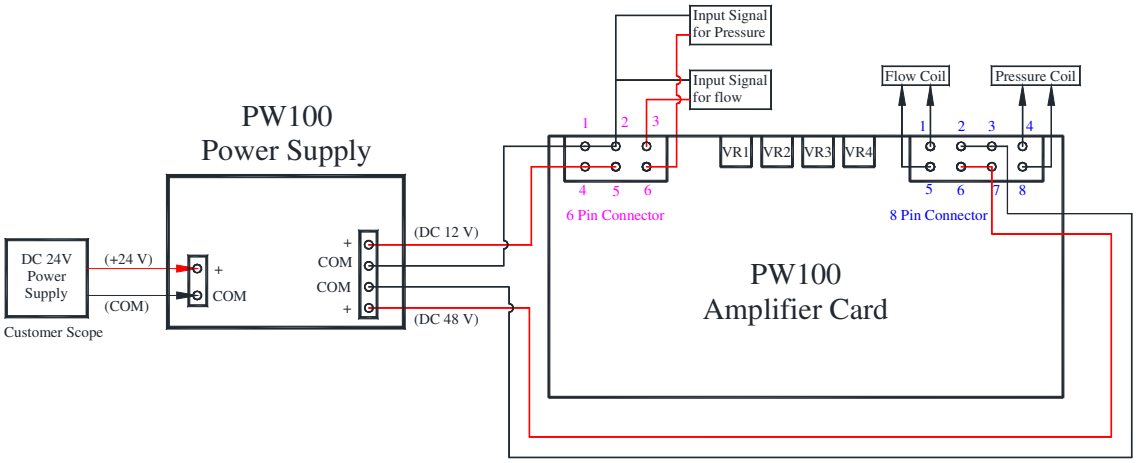
Power Card Block Diagram



Amplifier Card Block Diagram



Wiring Details



Details of Terminal Board

Trimmers	
VR1	Pressure Max.
VR2	Pressure Min.
VR3	Flow Max.
VR4	Flow Min.

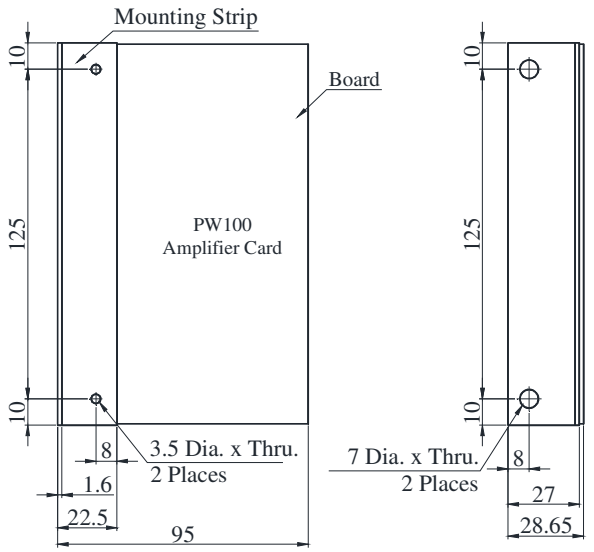
Input	
+24V	Red
COM	Black

6-Pin Connector		
Pin No.	Details	Cable Colour
1	Gnd	Black
2	Gnd	Black
3	Flow Input	Violet
4	DC 12V	Red
5	DC 12V	Red
6	Pressure Input	Green

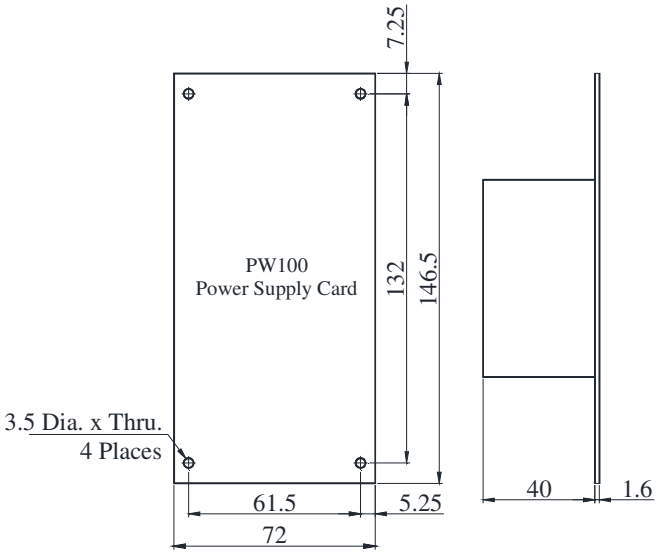
8-Pin Connector		
Pin No.	Details	Cable Colour
1	Flow Coil	Yellow
2	Gnd	Black
3	Gnd	Black
4	Pressure Coil	Blue
5	Flow Coil	Yellow
6	DC 48V	Red
7	DC 48V	Red
8	Pressure Coil	Blue

Mounting Details

Amplifier Card



Power Supply Card



Spare Parts List

Individual components can be ordered seperately.

Name of Part	Part Number		Qty.
Cable Set	6 Pin	Cable Set	1
	8 Pin		1
Power Supply Card	PW100-H11 Power Supply		1
Amplifier Card	PW100-※-H11 Amplifier		1