

**Accessories**

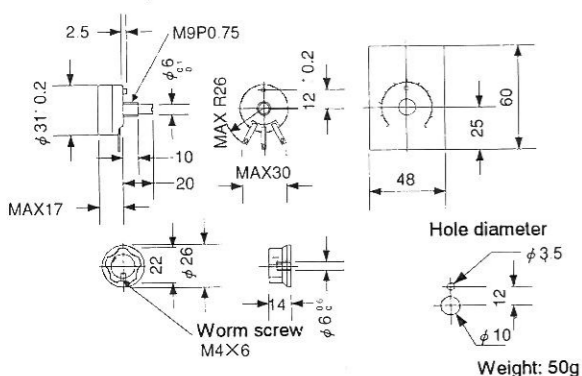
Separate purchase is required.

**Setters**

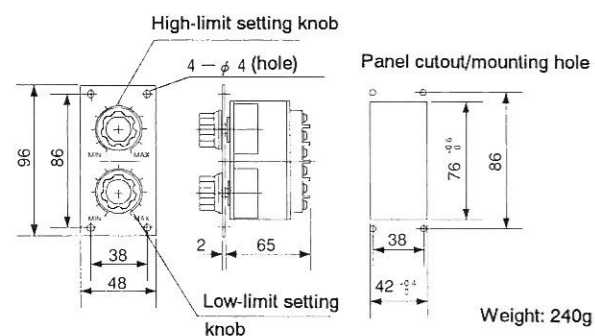
Model	Purpose	Specification
VL-JAL	Slope setting Low-limit setting	Variable resistor 10kΩ
VL-JMH	Manual setting High-limit setting	Variable resistor 2kΩ
VL-JHL	High-limit/low-limit setting	Variable resistor 10kΩ, 2kΩ
VL-JAM	Output indicator/ slope setting/ manual setting/ auto-manual switch	1. Voltage indicator: 0 to 150V 2. Voltage indicator: 0 to 250V Variable resistor 10kΩ, 2kΩ

VL-JAL and VL-JMH are consisted of a variable resistor, a scale plate and a knob.

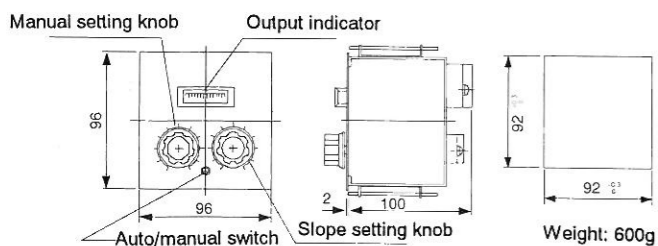
**VL-JAL, VL-JMH**



**VL-JHL**



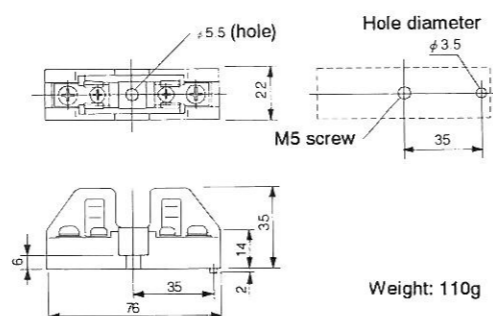
**VL-JAM**



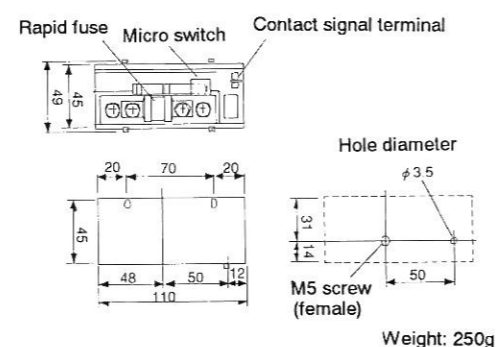
**Separate fuse units**

Model	Specification
FU-J020	Applicable current 20A, rapid fuse and holder
FU-JA030	Applicable current 30A, rapid fuse and holder with cover
FU-JA040	Applicable current 40A rapid fuse and holder with cover
FU-JA050	Applicable current 50A, rapid fuse and holder with cover
FU-JA075	Applicable current 75A rapid fuse and holder with cover
FU-JA100	Applicable current 100A, rapid fuse and holder with cover

**FU-J020**



**FU-JA□□□**

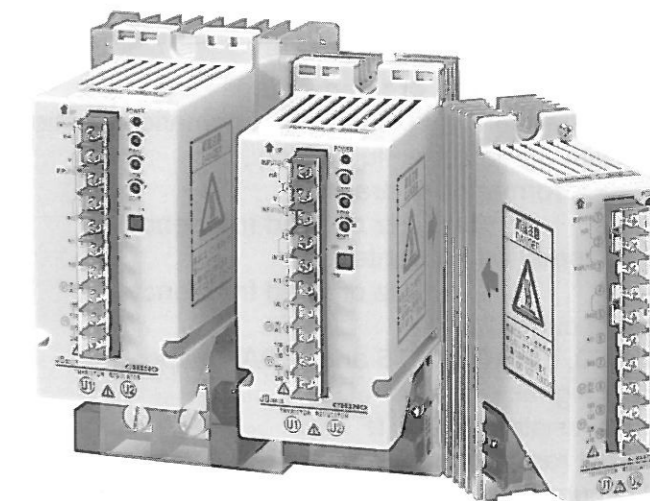


Unit: mm

Specifications subject to change without notice. Printed in Japan (I) 2001.1

**THYRISTOR REGULATOR  
JB SERIES**

JB series small and lightweight thyristor regulators for single-phase loads are characterized with high panel installation density. 6 models for the rated current of 20A, 30A, 40A, 50A, 75A and 100A are available for regulation of alternative current power by the combination with a controller or by manual control.



Two control systems, a phase-angle firing system for continuous power control and a zero-cross firing system, are built-in and selectable for various applications and power environment.

The applications include small electric furnaces, calibration bath, casting dies heating and heating units for laboratory use.

**Feature**

- Compact structure**  
Compact, lightweight and high panel installation density
- Phase-angle firing/zero-cross firing**  
The phase-angle firing system and the zero-cross firing system can be selected by internal dipswitches. You can select an appropriate system depending on applications or power environment.
- Automatic frequency detecting function**
- Linearization of input/output characteristics**
- Programmable soft-start time**  
With a built-in trimmer, the soft-start time and soft up/down time are programmable. This function is convenience to countermeasure a rapid change of load voltage and input signal, and to prevent overloading to loads by over-current.

**Built-in low-limit setting function**  
By the built-in low-limit setting function, the variation band of output to on-off contact input signal can be adjusted for sensitive control. A low-limit setting unit is separately provided, too.

**Abundant Accessories**  
Separate setting units for slope and high/low limit(s), and easy-to-mount external rapid fuse unit are provided.

**Model**

JB-2 □□□

Rated current	
020:	20A
030:	30A
040:	40A
050:	50A
075:	75A
100:	100A

**Built-in slope setting function**  
The slope of output to input signal can be adjusted by a built-in trimmer. A slope-setting unit is separately available, too.

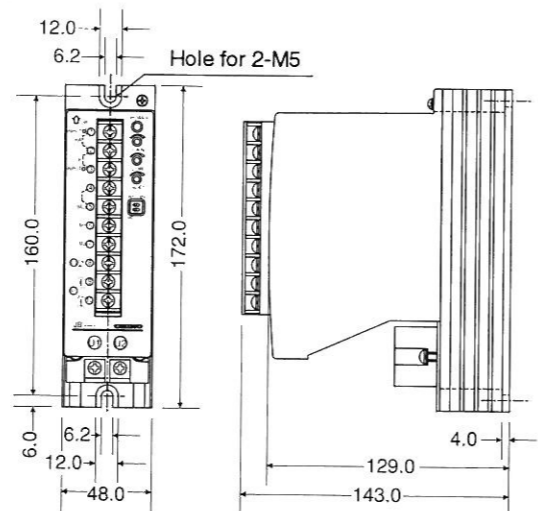
## ■ Specification

- No. of phases: Single phase  
 Rated voltage:  
 100 to 120VAC and 200 to 240VAC  
 Common to 100V line and 200V line  
 (selectable by terminals)  
 Allowable voltage fluctuation:  
 90% to 110% of rated voltage  
 Rated frequency: 50Hz/60Hz (automatic selection)  
 Allowable frequency fluctuation:  
 Performance guarantee...  
 ±1 Hz of rated frequency  
 Operation guarantee...  
 ±2 Hz of rated frequency  
 Rated current:  
 20, 30, 40, 50, 75 and 100A, 6 types  
 Input signal: 4 to 20mA DC  
 Input resistance: 100 Ω  
 Output range: 0 to 98% of the rated voltage  
 Minimum load current: 0.5A (at 98% output)  
 Applicable load:  
 Resistive load,  
 Inductive load (transformer primary control and  
 phase control system only)  
 Control system:  
 Phase-angle firing and zero-cross firing  
 (selectable by built-in dipswitches)  
 Output setting range:  
 Slope setting (0 to 100%)  
 Low-limit setting (0 to 100%)  
 Other functions:  
 Soft start, soft up/down (approx. 1 to 20 sec.)  
 Soft start at reset of power interruption  
 Working temperature range:  
 Performance guarantee ...0 to 40°C  
 Operation guarantee .....-15 to +55 °C  
 Working humidity range: 30 to 90%RH  
 Insulation resistance:  
 500VDC, higher than 20MΩ between power  
 terminals and case  
 Dielectric strength: 2000VAC, 1 minute  
 Weight:
- |               |                |
|---------------|----------------|
| Model JB-2020 | Approx. 0.9 kg |
| Model JB-2030 | Approx. 1.0 kg |
| Model JB-2040 | Approx. 1.2 kg |
| Model JB-2050 | Approx. 1.3 kg |
| Model JB-2075 | Approx. 1.9 kg |
| Model JB-2100 | Approx. 1.9 kg |

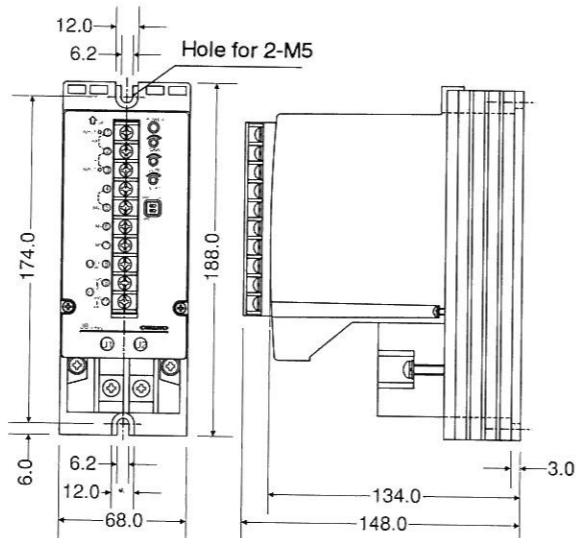
## ■ Dimension

■ 20A, 30A

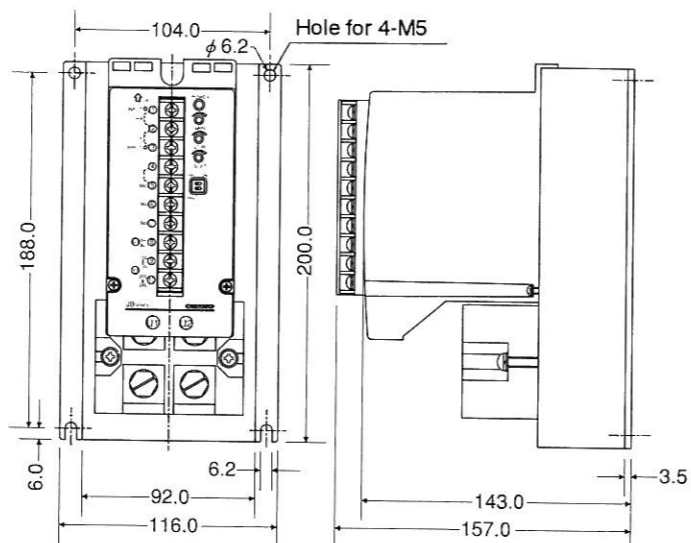
Unit: mm



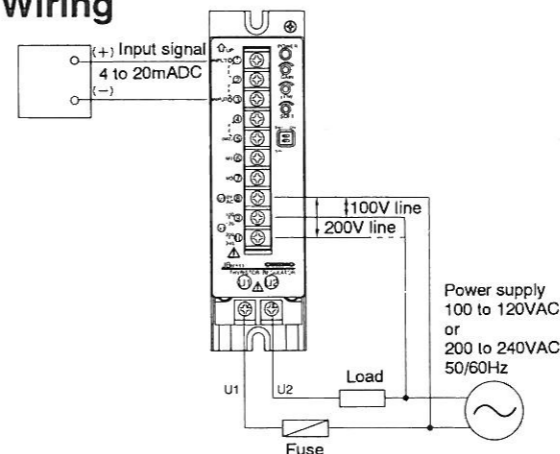
■ 40A, 50A



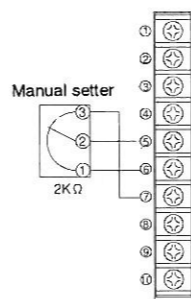
■ 75A, 100A



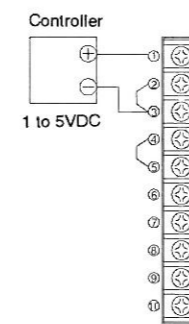
## ■ Wiring



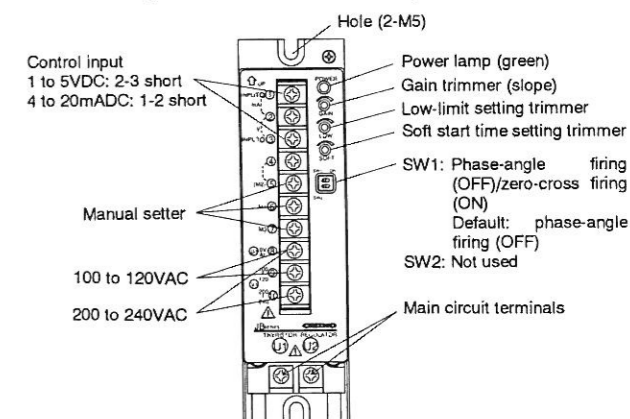
● Manual setter



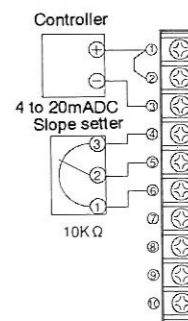
● Voltage signal 1 to 5VDC



## ■ View (Model JB-2030)

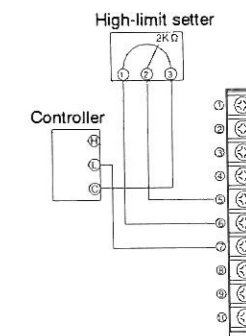


● Current signal 4 to 20mADC with a separate slope setter

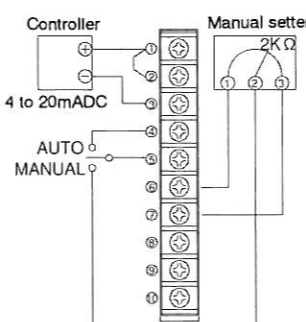


● Contact signal

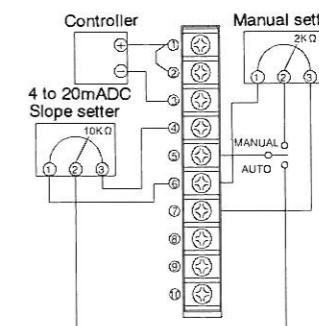
● High-limit setter only



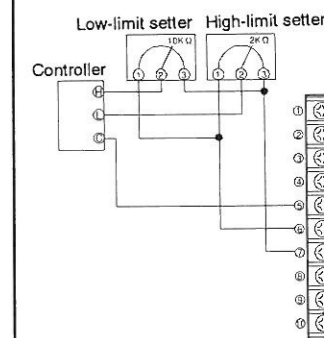
● Current signal 4 to 20mADC with a separate manual setter



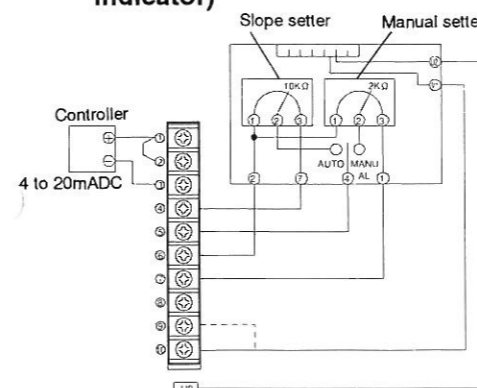
● Current signal 4 to 20mADC with a separate slope setter and a separate manual setter



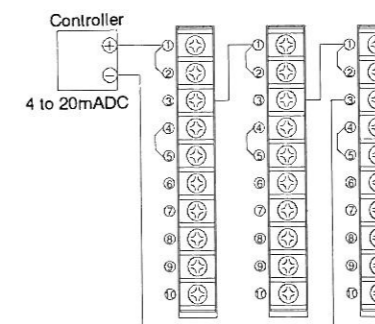
● With separate high-limit and low-limit setters



● Current signal 4 to 20mADC with a setter (with output indicator)



● Parallel running of 3 units by current signal 4 to 20mADC



● With a separate high-limit/low-limit setter

