

Heater disconnection warning machine

# FAL-10



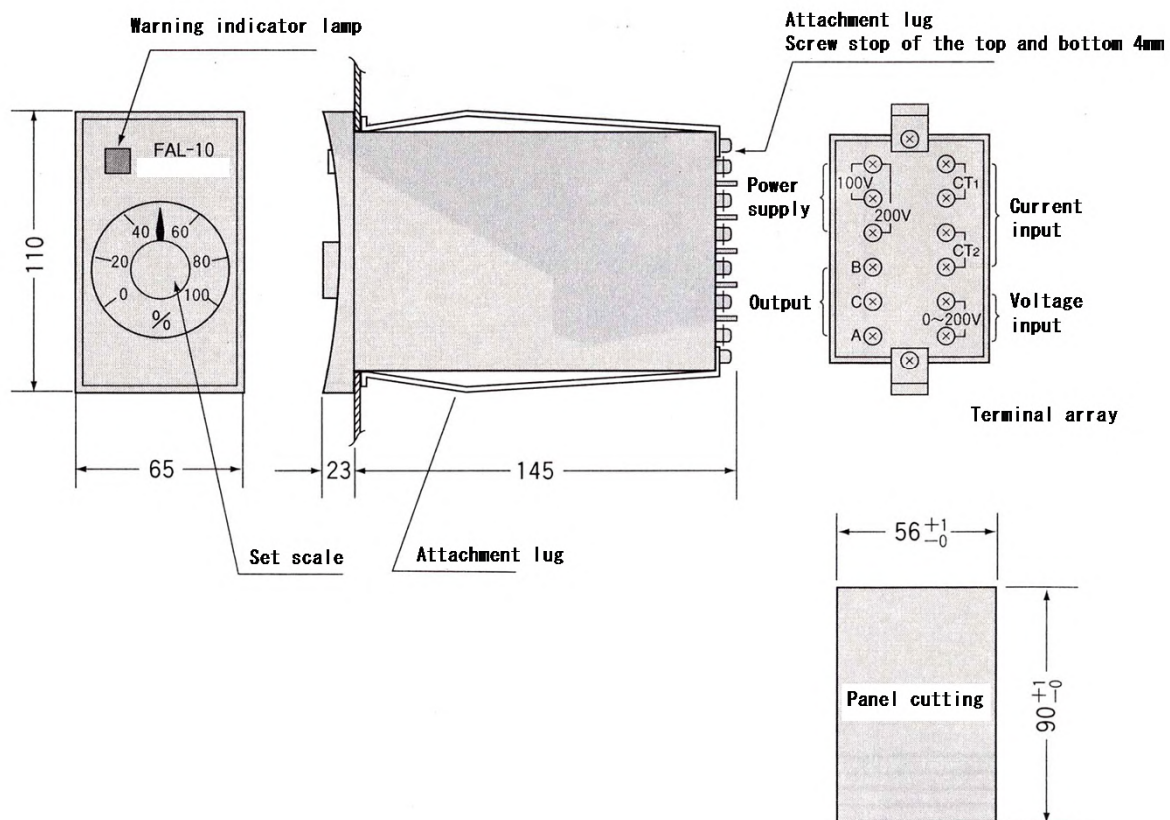
Forest Co., Ltd.

- Phase control, ON-OFF control, and 0 crossing control, etc.  
It is possible to use it regardless of the shape of waves.
- One heater disconnection perception in parallel heater
- The detection point can be arbitrarily set with the dial scale.
- The indicator lamp lights when it reaches the detection point, and the output signal. It does.
- The three-phase circuit is OK by one.

#### Specification

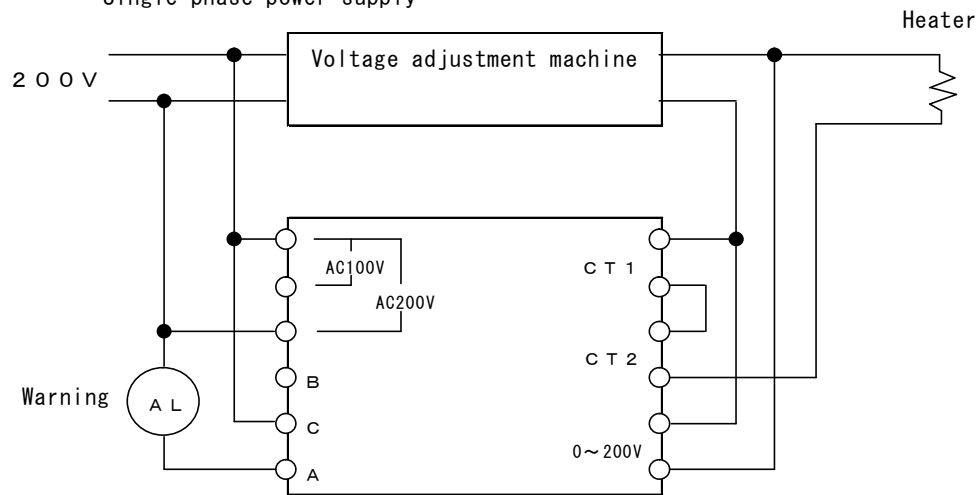
Meter power supply	AC100V/200V $\pm$ 10% 50/60Hz
Load current	0.3~5A(C.T external when 5A is exceeded)
Load voltage	0~100V/0~200V
Range of warning setting	3~100%
Set accuracy	$\pm$ 1.5%(full-scale)
Detection sensitivity	0.5%(full-scale)
Detection method	Load current and load voltage
Alarm output	Relay point of contact 1c(ratings 200V0.1A resistance load)
Category temperature range	-10~50°C
Operating humidity limits	90%RH or less(No do be dewy. )
Installation method	Panel installation
Insulation resistance	500VDC 20M $\Omega$ or more between each I/O terminals
Withstand voltage	1500VAC 1 minute between each I/O terminals
Weight	690g

#### Externals dimensional drawing

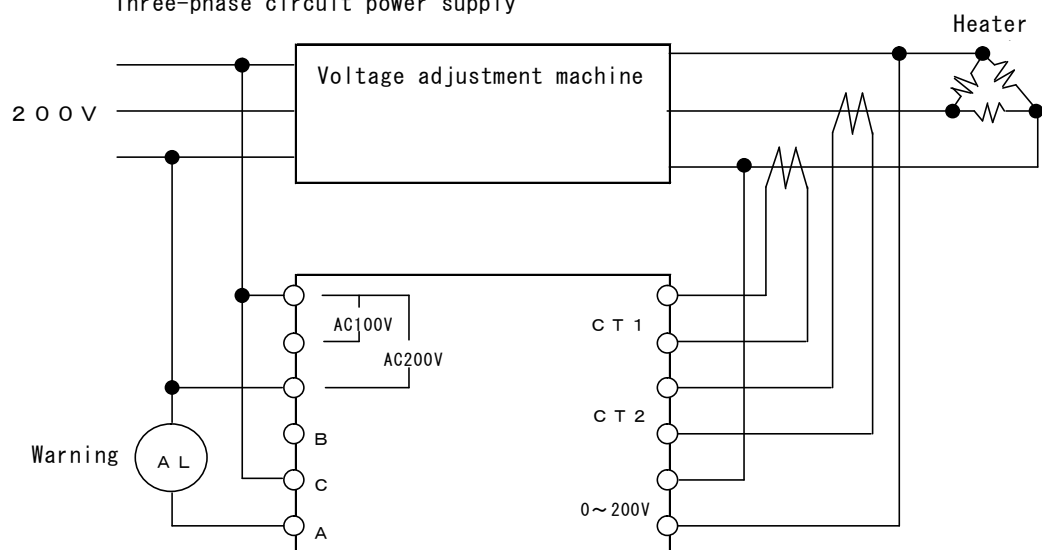


# FAL-10Example of external connecting wires

## Single phase power supply



## Three-phase circuit power supply



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## Business line

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Automatic temperature control meter

Various temperature detection edges

Direct-current ampere-hour meter

Direct-current ampere-hour meter by microcomputer control

Thyristor power controller

Heater disconnection alarm

In addition, electronic application apparatus



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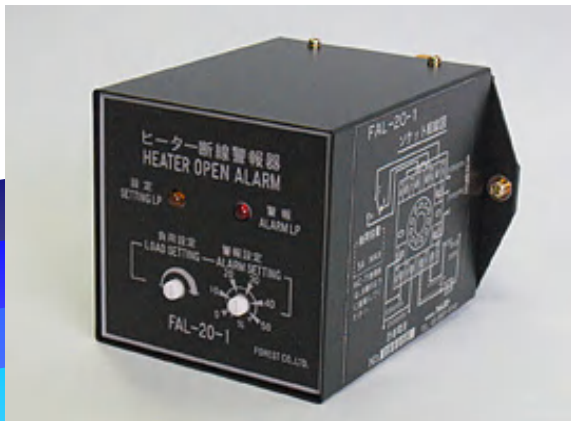
**Caution  
in using**

- Since this product is not manufactured for the applications stipulated in the Export Trade Control Ordinance, it cannot be used for the purpose of weapons of mass destruction.
- The final application and final customer must be checked so that it will not be used for weapons of mass destruction (military application, military equipment). Due attention must also be paid to the re-sale so that it will not be illegally exported.

09.05001A ①

Heater disconnection warning machine

# FAL-20-1/FAL-20-3



FAL-20-1 < for single phase >



FAL-20-3 < for three-phase circuit >



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It is possible to use it regardless of the shape of waves.
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#### FAL-20-1

##### Specification

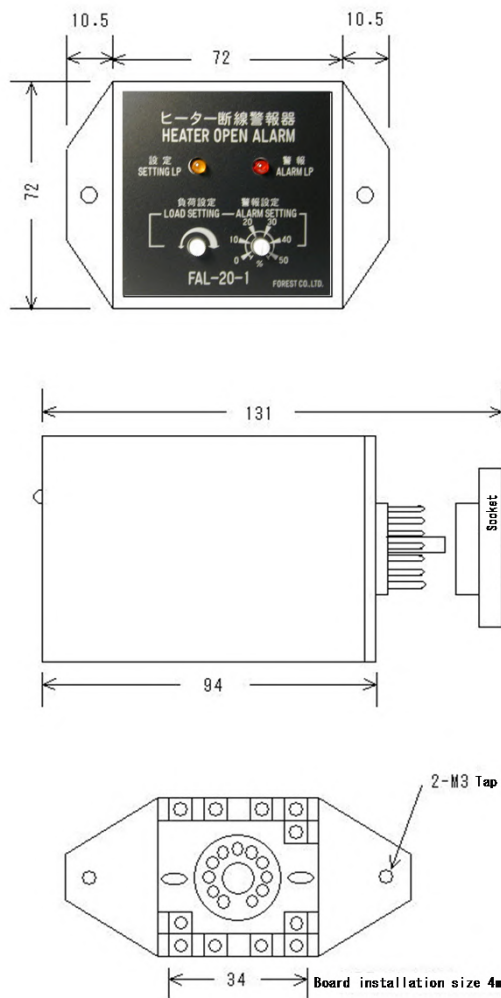
Meter power supply	AC100V/200V
Load current	5A(C.T external when 5A is exceeded)
Load voltage	0~100V/0~200V
Range of load setting	1~5A
Range of warning setting	3~50%
Power supply frequency	50/60Hz
Set accuracy	±3%
Warning setting accuracy	5A~3A ±3% 3A~1A ±5%
Detection method	Load current and load voltage
Alarm output	Relay point of contact 1c(ratings 200V 0.1A resistance load)
Category temperature range	0~50°C
Operating humidity limits	90%RH or less(No do be dewy. )
Installation method	Installation type plug-in type in board
Insulation resistance	500VDC 20M $\Omega$ or more between each I/O terminals
Withstand voltage	1500VAC 1 minute between each I/O terminals
Weight	680g

#### FAL-20-3

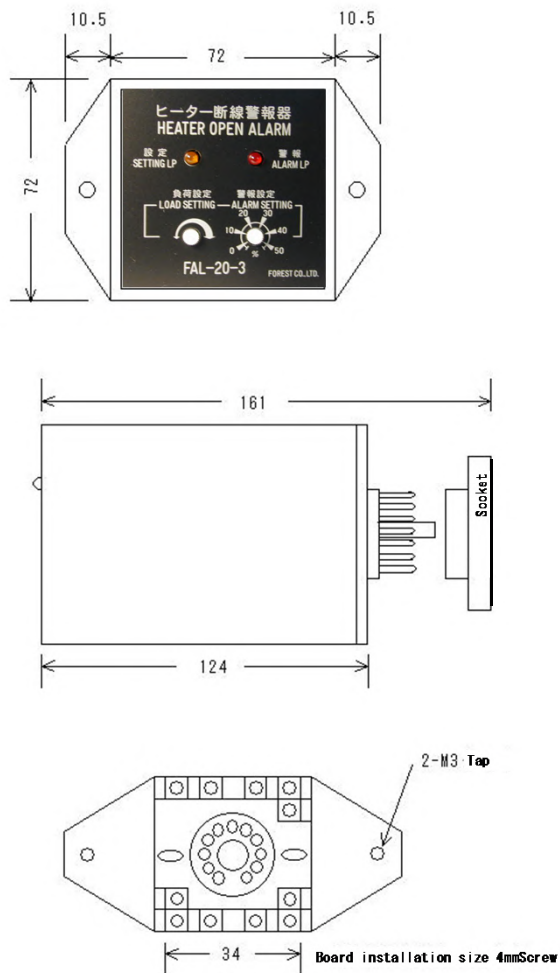
##### Specification

Meter power supply	AC200V/220V
Load current	Three-phase circuit 5A(Please put external C.T. )
Load voltage	0~200V
Range of load setting	1~5A
Range of warning setting	3~50%
Power supply frequency	50/60Hz
Set accuracy	±3%
Warning setting accuracy	5A~3A ±3% 3A~1A ±5%
Detection method	Load current and load voltage
Alarm output	Relay point of contact 1c(ratings 200V 0.1A resistance load)
Category temperature range	0~50°C
Operating humidity limits	90%RH or less(No do be dewy. )
Installation method	Installation type plug-in type in board
Insulation resistance	500VDC 20M $\Omega$ or more between each I/O terminals
Withstand voltage	1500VAC 1 minute between each I/O terminals
Weight	760g

FAL-20-1 Externals dimensional drawing

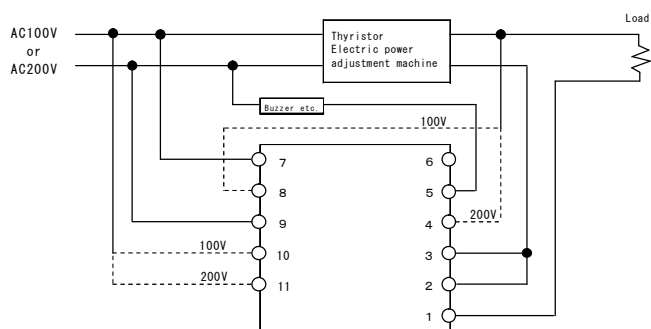


FAL-20-3 Externals dimensional drawing

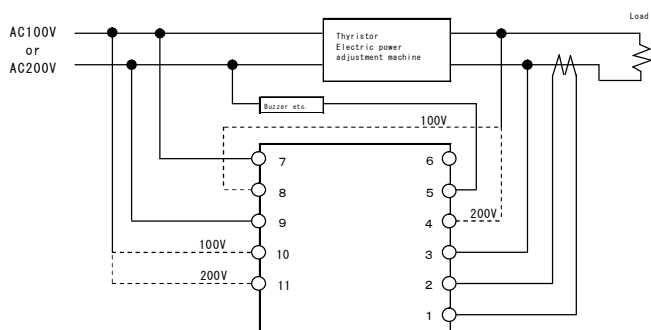


FAL-20-1 Example of external connecting wires

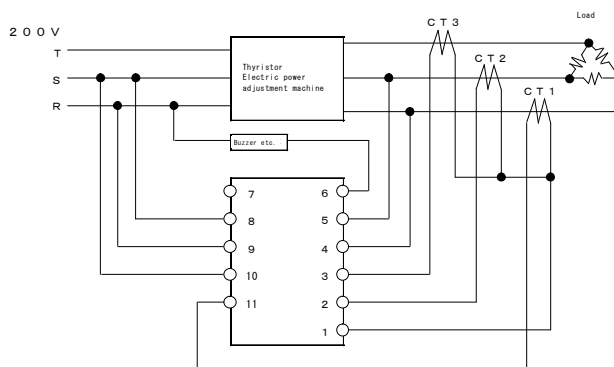
AC100V 0.5kW } In the following cases  
AC200V 1.0kW }



AC100V 0.5kW } In case of the above-mentioned  
AC200V 1.0kW }



FAL-20-3 Example of external connecting wires



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## Business line

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