

5-1

Room temperature controller GRC-1100



Summary

- Power to operate : 24VAC, 24VDC
- Heating&cooling switching available
- Temp. sensor installed(PT1000Ω)
- Output control : 0 ~ 10 VDC
- To control the room temperature stably, as proportional room temperature controller for heating and cooling.

Use

- Normal use in residential building, industrial building
- Compatible with Zone valve, Temp. controlling valve

Function

- Heating : Valve opens in case that room temp. is lower than set-value with dial-knob on heating
- Cooling : Valve opens in case that duct temp. is higher than set-value with dial-knob on cooling

Technical features

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| <ul style="list-style-type: none"> • Power supply : 24VAC/DC ±15% • Consumption power : 0.5VA • Output control : 0 ~ 10VDC • Housing : IP30 • Weight : 0.08kg | <ul style="list-style-type: none"> • Frequency : 50 or 60Hz • Range of control : 0 ~ 40°C • Temp. sensor : PT1000Ω installed • Ambient Temp. and humidity <ul style="list-style-type: none"> 1) operation : -5 ~ 50°C and below 95%RH 2) in transit : -5 ~ 70°C and below 95%RH |
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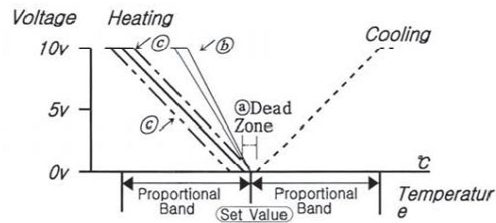
Technical design

- Proportional controlling. Transmitting proportional control-signal estimating variances by comparing room temp. of sensor and adjusted set-value(control-signal range : 0 ~ 10VDC)
- Variances to control changes from 0 to 100% by control-signal, which means that variances to control is proportionally co-relevant to control-signal.

Setting

- Heating&Cooling switching is installed.
- Set the required temp. by dial-knob on the front of duct temp. controller.
- Install to sense air-temperature accurately without any effect from direct sunlight or other heat-sources
- Equip in Conduit-box(Joint-box) or fix with screw on the sides indoors

Adjustment



V/R③ : Dead Zone Adjust

①. 0~1v	⇒ 0℃
②. 1~2v	⇒ 0.5℃
③. 2~3v	⇒ 1℃
④. 3~5v	⇒ 1.5℃

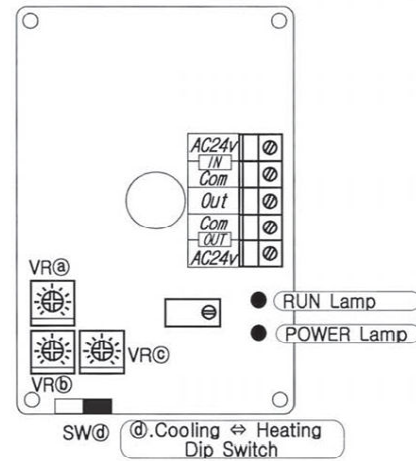
V/R④ : Output Curve Adjust

①. 0~1v	⇒ 3℃
②. 1~2v	⇒ 4℃
③. 2~3v	⇒ 5℃
④. 3~4v	⇒ 7℃
⑤. 4~5v	⇒ 10℃

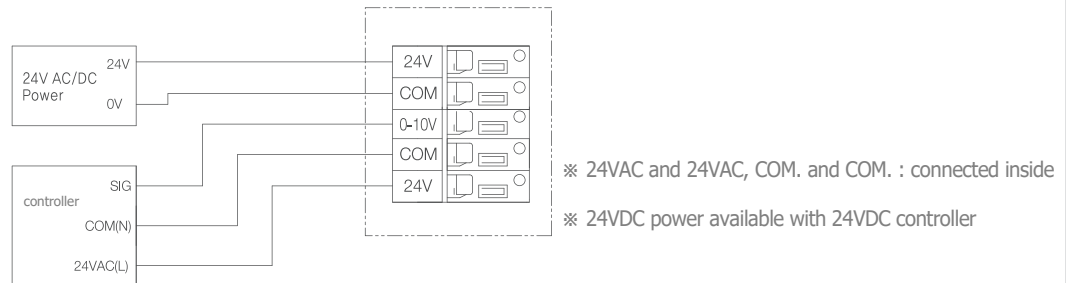
Max Output

V/R⑤ : adjustment of upper side temperature changes 0~3℃
(turn to the right on the center)

: adjustment of lower side temperature changes 0~3℃
(turn to the left on the center)



Wiring diagram



Shape dimension

