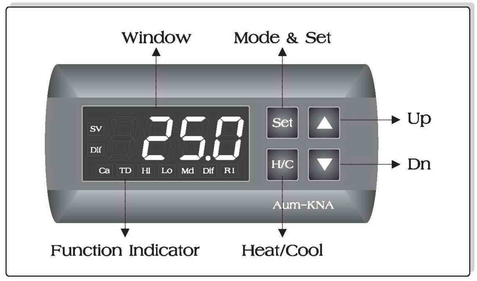
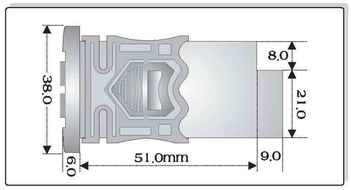
Manual for dimensions & functions

CE ISO INNOBIZ

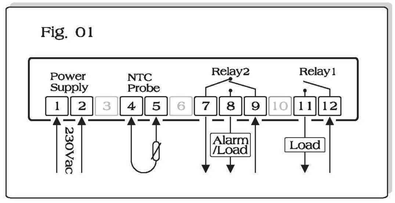
Mod. : Aum-KNA

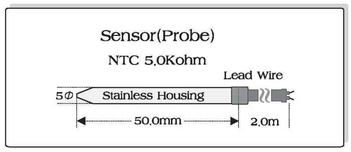




*. Color : Black
*. Drilling Template : B.:70.5xH.:30.0xD.:60.0mm

Fig. 01





Please be sure to read and fully understand the notices before using it.

At Model "**Aum-KNA**", you can choose Heating or Cooling.
Aum-KNA has two outputs, Relay1+Relay2.
The Relay2 can be used as either Alarm or Load(Heater/Cooler).

a. When "**Aum-KNA**" is connected to **230Vac power** and a sensor is connected and switched on, the actual temperature detected will be shown on its window.

b. Whenever "**Set**" key is pressed, the next function will be chosen(**S**election **V**alue ⇨ **Dif**ferential Value ⇨ **Ca**libration ⇨ **T**ime **D**elay ⇨ **Hi**gh Alarm ⇨ **Lo**w Alarm ⇨ Alarm mode ⇨ Alarm Differential Value). However, "**Calibration**" can be selected by pressing "**Set**" and "**H/C**" key at the same time.

c. After selecting a function by "**Set**" key, revise the values by pressing "▲/▼" key. Then, press "**Set**" key again to complete the setting.
If **20** minutes pass after the setting, the present temperature will be displayed on the window automatically. Or, if you press continuously up to the end of all modes, the present temperature will be displayed. When you press "▲/▼" key in the function to be adjusted, the mode is blinking on the window.

d. When changing the mode of "**Heat/Cool**". Pressing the "**H/C**" key for **5** seconds "**HEAt/Cool**" will be displayed on FND by "▲/▼" and "**H/C**" key same time.
The HEAt/COOL functions will be chosen in the reverse order.

e. When the temperature sensor is disconnected or short, "**-Lo-/-Hi-**" will be displayed on the window.

f. The relay(5A/250Vac) is for signals only. It should not exceed **100w/230Vac.**

*. All specifications are subject to change without notice.

Method of program loading

Mod. : Aum-KNA

No.1 : Selection V.(**SV**) Range : **-20.0~99.9℃** Apply : Heater/Cooler	a. Select a function with "Set" key & set the value by pressing "▲/▼" key. Then, "Set" key must be pressed to finalize the new setting. b. Selection Value is as follows : **-20.0℃** <(S.V)+(Dif)+(Ca)< **99.9℃.**	25.0
No.2 : Differential V.(**Dif**) Range : **0.1 ~ 12.7℃** Apply : ± Select'n Value	a. The **Dif**ferential value is as follows : For heating, if the "**SV**" **25.0**, "**Dif**" **2.0**, the working range will be within **23.0~25.0℃**. For cooling, if the "**SV**" **25.0**, "**Dif**" **2.0** the working range will be **25.0~27.0℃**.	0.5
No.3 : Calibration(**Ca**) Range : **0.0 ~ +/-6.3℃** Apply : +/-Present Temp.	a. The purpose of this function is to calibrate the differences in present temp. that happen when the lead wire of sensor has been extended considerably. Keep the lead(Shield) wire of sensor away from a powerful generator or an electrical noise. b. Press "**Set+H/C**" key at the same time to select this function.	0.0
No.4 : Time Delay(**TD**) Range : **00:00~15:00**(m:s) Apply : R1 "OFF" ▶ Delay	a. This function protects a machine from damage that can be resulted from frequent stops and restarts by delaying the operation of a relay during the set value. The relay won't operate for the set value of **T**ime **D**elay from the time of "**OFF**" of the relay. b. It protects a machine from the chattering due to noise.	00:00
No.5 : High Alarm & Lock Range : **S.V. < 99.9℃** Apply : Alarm / Load	a. If the present temperature exceeds the highest limit, the high alarm indicator "**-Hi-**" on the display window is turned on and Relay2 for alarm will work according to **No.7** Alarm mode. b. The setting range of High alarm value should be set higher the **No.1** Selection value.	99.9
No.6 : Low Alarm & Lock Range : **-20.0 < S.V.** Apply : Alarm / Load	a. If the present temperature exceeds the lowest limit, the low alarm indicator "**-Lo-**" on the display window is turned on and Relay2 for alarm will work according to **No.7** Alarm mode. b. The setting range of Low alarm value should be set lower the **No.1** Selection value.	-20.0
No.7: Alarm mode Range : **AL:ALert/AL:FLick** Apply : Load / Alarm	a. There are two different signals with regard to the function of alarm. One is a state of "**Alert**"=Continuity/"**FLick**"=Flash(R2 Diff. 0.0°C). b. The mode of "**AL:FL**" is only applicable for buzzer. The other mode of "**AL:AL**" can only be applied to an auxiliary machine. c. Press "▲" key to choose "**AL:FL**", press "▼" key to choose "**AL:AL**".	AL:AL
No.8 : R2 Differential(Dif) Range : **0.0 ~ 12.7℃** Apply : High(+), Low(-)	a. The set value of the "**Dif**"(R2) applies to alarm (**Hi**gh+Dif.)/(**Lo**w-Dif.). b. If you want to operate an auxiliary machine(Heater/Cooler) instead of alarm, the differential value should be set to protect the machine. At this time, **No.7** should be **AL:AL.**	0.0
H/C + ▲/▼ Convert Range : **HEAt / COOL** Apply : Relay1	a. press "▲" key while pressing "**H/C**" key after **5**seconds, "**HEAt**" and the other "▼" key, "**COOL**" mode will be changed functions. b. It must be matching the load, the operation of Heat/Cool can be apply the No.1 relay.	HEAt

-LO- Fault of Sensor

Cautions in use

Mod.: Aum-KNA

1. Please avoid excessive rising of temperature, humidity and impact.
2. Please it upright to prevent water droplet at the end part of sensor. NTC Sensor
3. Keep it away from high voltage device or power generator and motor. Alarm
4. Please wait for **5**seconds to turning it on again to avoid electric impact.
5. Use it between **0~60℃** in temperature, **60%** humidity around the controllers.
6. Please install in safe from strong acids, alkalis, oil, dust & direct rays of sun.
7. Please set safe protection at the double circuit when using at expensive appliances (Freezer, Heater and motor).