

A19ZBA Type Temperature Control

Application

The A19ZBA temperature control is designed for water chiller applications. The control has a range of 38 to 80°F (3 to 27°C) with contacts that open on a temperature drop.

A packing nut assembly, Part No. FTG13A-600R, (Fig. 2) is supplied with the control for immersion applications where a bulb well is not required. Bulb well No. WEL14A-600R (Fig. 3) for immersion applications is available, if required.

All Series A19 controls are designed for use *only* as operating controls. Where an operating control failure would result in personal injury and/or loss of property, it is the responsibility of the installer to add devices (safety, limit controls) or systems (alarm, supervisory systems) that protect against, or warn of, control failure.

Installation

When provided, follow the equipment manufacturer's instructions. If instructions are not supplied, follow the instructions in this sheet.

CAUTION: Do not dent or deform the sensitive bulb of this control. A dent or deformation will change the calibration and cause the control to cycle at a temperature lower than the dial setting.

Mounting

When installing the control, use the mounting bracket as a template and mark the location for the two mounting screws.

Drill or punch two holes and start the mounting screws. Place the slot in the bottom of the bracket under the head of the lower mounting screw. Position the control so the top screw is in the top slot. Tighten both screws. It is not necessary to level the control except for appearance.

For closed tank applications without a bulb well, use the FTG13A-600R packing nut. (See Fig. 2.) Put parts over the support tube section of the element and place bulb in the tank. Install the 1/2 in. NPT adapter in the tank opening and tighten. Screw the packing nut with the retaining washers and packing into the adapter as shown in Fig. 2.

CAUTION: Turn off the liquid supply and relieve the pressure before installing or removing the bulb or bulb well.

For applications requiring a bulb well, install the bulb well in the tank opening. Remove the bushing from the bulb well and slide the bushing over the capillary. Insert the bulb into the bulb well and replace the bushing. Push the bulb into position in the bottom of the well. Tighten the set screw in the adapter end to hold the bulb in position.

Wiring

WARNING: Disconnect the power supply before wiring connections are made to avoid possible electrical shock or damage to the equipment.

Make all wiring connections using copper conductors only, and in accordance with the National Electrical Code and local regulations.

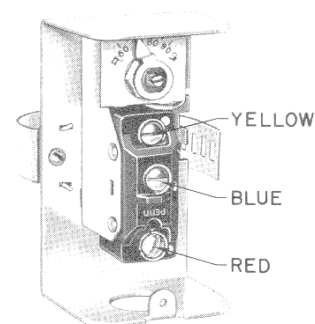


Fig. 1 -- A19ZBA-1 Temperature Control. Note the mounting bracket on the back of the case.

Note: Use the terminal screws furnished (8-32 x 1/4 in. binder head). Substitution of other screws may cause problems in making proper connections.

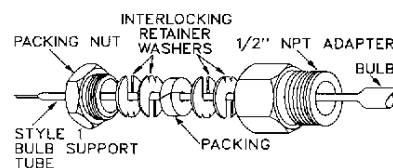


Fig. 2 — Part No. FTG13A-600R packing nut assembly.

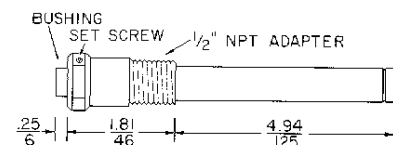


Fig. 3 — Part No. WEL14A-600R bulb well for liquid immersion applications where the temperature bulb may be removed without draining the tank.

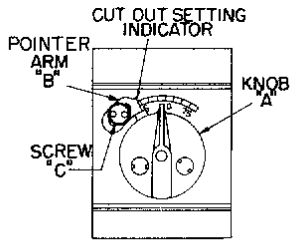


Fig. 4 — View of the dial showing the low cutout stop.

Adjustments (See Fig. 4)

The A19ZBA control has a locked low cutout stop. Pointer "B" is locked in place with a screw that requires a special spanner wrench, Part No. 836-61, to change the setting. The special wrench is supplied with each control. To change the low cutout stop setting, proceed as follows:

1. Loosen screw "C" with the special wrench.
2. Slide pointer arm "B" to the desired cutout setting (adjustable from approximately 38 to 48°F [3 to 9°C]). The cutout setting is indicated by the flat of arm "B."
3. Tighten screw "C."

The cut-in temperature is set by moving knob "A" to the desired cut-in setting. This knob adjustment does not change the cutout setting, but provides for a short or long recycle time as required by the application.

Checkout Procedure

Before leaving the installation, observe at least three complete operating cycles to be sure that all components are functioning correctly.

Repairs and Replacement

Field repairs must not be made. For a replacement control, contact the nearest Johnson Controls distributor.

**JOHNSON
CONTROLS**

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