A19ZBC Type Temperature Control

Application

The A19ZBC is used for general purpose operating temperature control applications. The control has a single-pole, double-throw contact unit and a temperature range of 0 to 70°F (-15 to 25°C).

A packing nut assembly, Part No. FTG13A-600R, (Fig. 2) and a bulb well No. WEL14A-602R (Fig. 3) for immersion applications are available and are ordered separately, 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 the 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.

Fig. 1 -- A19ZBC Temperature Control. Note the mounting bracket on the back of the case.

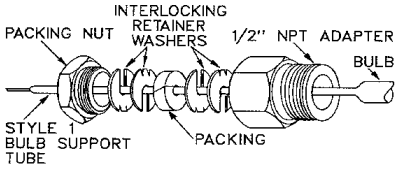

Fig. 2 — Part No. FTG13A-600R packing nut assembly.

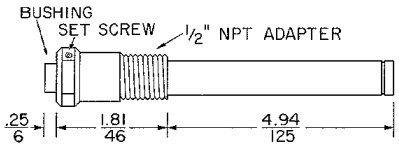

Fig. 3 — Part No. WEL14A-600R bulb well for liquid immersion applications where the temperature bulb may be removed without draining the tank.

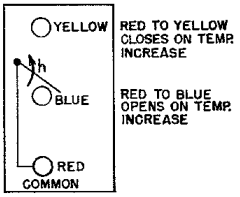

Fig. 4 — Terminal arrangement for the A19ZBC.

Code No. LIT-121071
Part No. 996-460

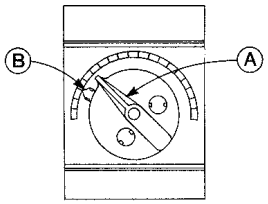

Fig. 5 — View of the dial showing adjusting knob "A" and differential pointer "B."

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. See Fig. 4 for terminal identifications and contact action.

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.

Adjustments (See Fig. 5)

Set the cut-in point by turning knob "A" to the desired setting. Rotate pointer "B" to the desired cutout setting (differential adjustment).

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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