A19D Series Surface Mounted Strap-on Temperature Control

Application

This control has a single-pole, double-throw contact mechanism and is designed for surface mounting to either horizontal or vertical pipes. Some typical applications are:

- Boiler application as a high temperature detection control.
- Unit heater control as a low temperature detection control.
- Miscellaneous applications where a strap-on control is desirable.

All Series A19 temperature 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.

Features

- SPDT contact action for either high or low temperature detection application.
- Insulation attached to rear of control to minimize effects of ambient temperature on control setting.
- Sealed dust protected switch.

Fig. 1 -- Surface mounted temperature control with screwdriver slot adjustment.

General Description

The switch has color coded terminals for ease of wiring. As a high temperature detection control (open "High" action) use red and blue terminals. As a low temperature detection control (open "Low" action) use red and yellow terminals. The control can be mounted in any position.

The sensing element has a liquid charge and provides fast response to a change in temperature.

Knob range adjustment and visible scale are standard. Models are available with a knob for field convertible adjustment. These models are supplied with a snap-in plug in the cover for concealed screwdriver slot adjustment.

Specifications

Type Number	**A19DAC**	SPDT, Standard Differential
	A19DAF	SPDT, Close Differential
Range		100 to 240°F (40 to 116°C)
Differential (Fixed)	**A19DAC**	10F° (5.6C°)
	A19DAF	5F° (2.8C°)
Maximum Temperature	**At Case**	140°F (60°C)
	At Bulb	290°F (143°C)
Contact Action		Red to Yellow Closes on Temperature Rise Red to Blue Opens on Temperature Rise
Switch		Snap Acting, Enclosed Dust Protected Pennswitch
Terminal Screws		No. 8–32 x 1/4" Binder Head with Cup Washers
Enclosure		NEMA Type 1 General Purpose
Material	**Case**	.062" (1.57 mm) Cold Rolled Steel
	Cover	.025" (0.64 mm) Cold Rolled Steel
Conduit Opening		One 7/8" (22 mm) Diameter Hole for 1/2" Conduit
Finish		Gray Baked Enamel
Mounting		Clamp-On (Strap Included)
Shipping Weight	**Individual Pack**	1.2 lb (.54 kg)
	Overpack of 50 Units	62.0 lb (28 kg)

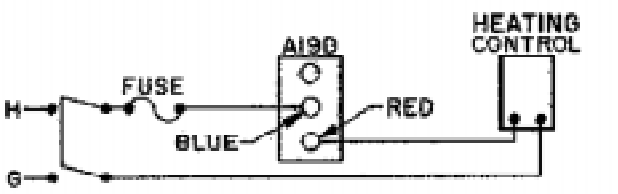

Fig. 2: Wiring the A19D as a high temperature cutout control.

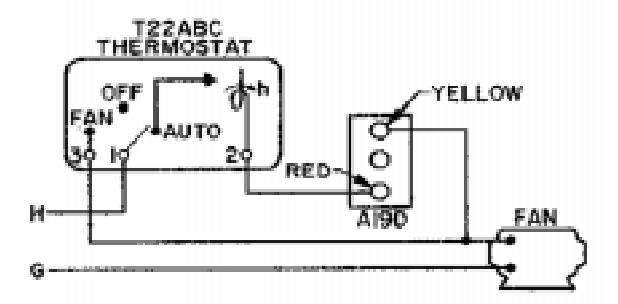

Fig. 3: Wiring the A19D as a low cutout unit heater control.

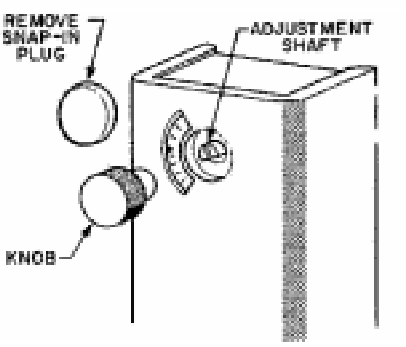

Fig. 4: Drawing showing snap-in plug removed and the knob in line to assemble. Press the knob onto the slotted shaft.

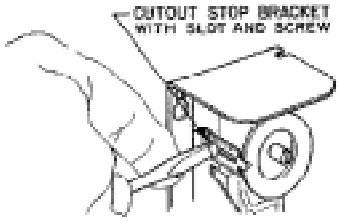

Fig. 5: The controls have a screw type cutout stop. The stop screw must be loosened and moved to the stop setting desired. Tighten screw after setting is made.

Optional Constructions

Range Adjuster

Screwdriver slot with visible scale or screwdriver slot with concealed scale and solid cover are optional at no extra cost (quantity orders only). Models are available with field convertible adjustment. This provides conversion to knob, concealed screwdriver slot or external screwdriver slot adjustment.

Electrical Ratings

Standard Differential

Motor Ratings	120 V	240 V
AC Full Load Amp	10.0	6.0
AC Locked Rotor Amp	60.0	36.0
AC Non-Inductive Amp	10.0	6.0
Pilot Duty — 125 VA, 120/240 VAC		

Close Differential

Motor Ratings	120 V	240 V
AC Full Load Amp	6.0	3.4
AC Locked Rotor Amp	36.0	20.4
AC Non-Inductive Amp	6.0	3.4
Pilot Duty — 125 VA, 120/240 VAC		

Repairs and Replacement

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

Controls Group
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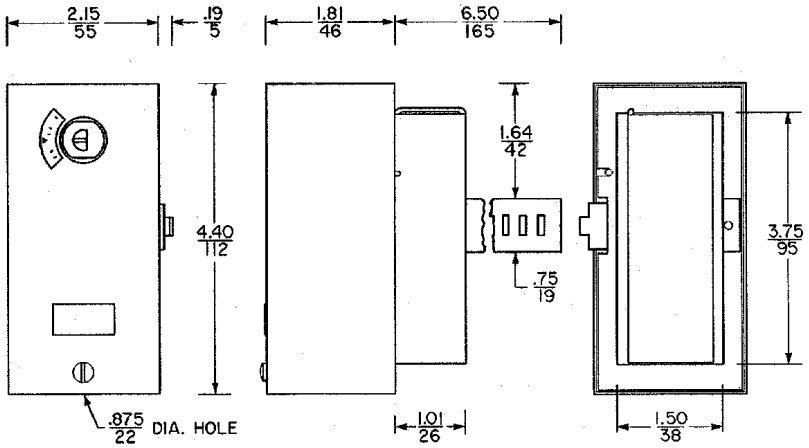

Performance specifications appearing herein are nominal and are subject to accepted manufacturing tolerances and application variables.

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