A28 Series Two-Stage Temperature Control Catalog Page

Description

The A28 Series are two-stage temperature controls that incorporate a liquid-filled sensing element.

Refer to the *A28 Series Two-Stage Temperature Controls with NEMA 1 Enclosure Product Bulletin (LIT-125130)* for important product application information.

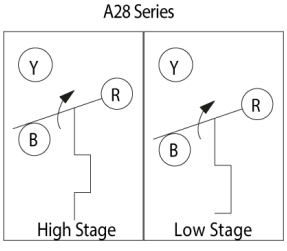
Figure 1: A28AA-4 Temperature Control



Figure 2: A28AB-29 Temperature Control



Figure 3: A28 Action Diagram



Features

- wide temperature ranges available
- constant differential throughout the entire range

- single-pole, double-throw (SPDT) snap-acting switches
- unaffected by changes in barometric pressure
- unaffected by cross ambient conditions
- compact enclosure
- variety of sensing element styles

Applications

Use for temperature sensing applications requiring two-stage control of HVAC/R equipment.

Accessories

- packing nut assembly available for direct immersion applications (Code No. **FTG13A-600R**)
- remote bulb models include 5/8 in. mounting clip

Selection Charts

Table 1: Selection Charts

Product Code Number	Switch Action	Range °F (°C)	Differential F° (C°)	Bulb and Capillary	Bulb Well No. (Order Separately)	Range Adjuster
Coiled Bulb-Fixed Differential						
A28AA-4C	Two-SPDT	30 to 110 (-1 to 43)	3-1/2 (1.9) each stage 3 (1.7) fixed between stages	1-3/8 in. x 2-1/4 in. coiled	–	Convertible
Case Compensated-Fixed Differential						
A28AA-9C	Two-SPDT	20 to 80 (-7 to 27)	3-1/2 (1.9) each stage 3 (1.7) fixed between stages	3/8 in. x 5 in. 6 ft capillary[1]	**WEL14A-603R**	Knob
Wide Range-Adjustable Interstage Differential						
A28AA-28C	Two-SPDT	30 to 110 (-1 to 43)	3-1/2 (1.9) each stage 2 to 7 adjustable between stages	12 ft averaging bulb 6 ft capillary	–	Screwdriver slot
A28AA-29C	Two-SPDT	-30 to 100 (-34 to 38)	5 (2.8) each stage 2 to 7 adjustable between stages	3/8 in. x 4 in. 8 ft capillary[1]	**WEL14A-602R**	Convertible
A28AA-36C	Two-SPDT	40 to 90 (4 to 32)	3 each stage 2 to 7 adjustable between stages	3/8 in. x 5-3/4 in. 6 ft capillary	–	Knob
A28AA-37C	Two-SPDT	60 to 140 (16 to 60)	5 each stage 2 to 7 adjustable between stages	3/8 in. x 4 in. 6 ft capillary	**WEL14A-602R**	Knob
A28AJ-4C	Two-SPDT	20 to 80 (-7 to 27)	2 each stage 2 to 7 adjustable between stages	3/16 in. x 22 in. 6 ft capillary	–	Knob
Changeover Control						
A28AB-1C	Two-SPDT[2]	20 to 80 (-7 to 27)	3-1/2 (1.9)	3/8 in. x 5 in. 6 ft capillary	**WEL14A-603R**	Screwdriver slot

1 Packing nut assembly available for direct immersion applications (Code No. **FTG13A-600R**).
2 Switches within 1 F° (0.6 C°) of each other.

Table 2: Replacement Parts

Product Code Number	Description
CVR28A-617R	Concealed adjustment
CVR28A-618R	Visible scale
KNB20A-602R	Knob kit

A28 Series Two-Stage Temperature Control Technical Specifications

Maximum bulb temperature of A28AA-37 is 230°F (110°C). For all others, maximum bulb temperature is 140°F (60°C).

Table 3: Electrical Ratings

Motor Ratings VAC	120	208	240	277
A28AA, A				
AC Full Load A	16.0	9.2	8.0	---
AC Locked Rotor A	96.0	55.2	48.0	---
Non-Inductive or Resistance Load A (Not Lamp Loads)	16.0	9.2	8.0	7.2
Pilot Duty	125 VA, 24 to 277 VAC[1]			
A28AJ				
AC Full Load A	6.0	3.4	3.0	---
AC Locked Rotor A	36.0	20.4	18.0	---
Non-Inductive or Resistance Load A (Not Lamp Loads)	15.0	9.2	8.0	7.2
Pilot Duty	125 VA, 24 to 277 VAC[1]			
A28AB				
AC Full Load A	16.0	9.2	8.0	---
AC Locked Rotor A	96.0	55.2	48.0	---
Non-Inductive or Resistance Load A (Not Lamp Loads)	16.0	9.2	8.0	7.2
Pilot Duty	125 VA, 24 to 277 VAC[1]			

1 When used as two-circuit control, the total connected load must not exceed 2,000 VA.

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