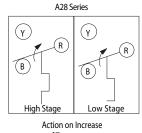


A28 Series Two-Stage Temperature Control Catalog Page

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 Product Bulletin (LIT-125130) for important product application information.



of Temperature

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



A28AA-4 Temperature Control

Temperature Control

A28AB-29

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

Product Code Number	Switch Action	Range °F (°C)	Differential F° (C°)	Bulb and Capillary	Bulb Well No. (Order Separately)	Range Adjuster
			Coiled Bulb-Fixed Dif	ferential		
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	d 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 Inters	stage 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 Cor	trol	·	
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 $C^\circ)$ of each other.

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products. © 2018 Johnson Controls. www.penncontrols.com



A28 Series Two-Stage Temperature Control Catalog Page (Continued)

Replacement Parts

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

Technical Specifications

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

Electrical Ratings

Motor Ratings VAC	120	208	240	277		
	A28	BAA, 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					
	A	28AJ				
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					
	A	28AB				
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.