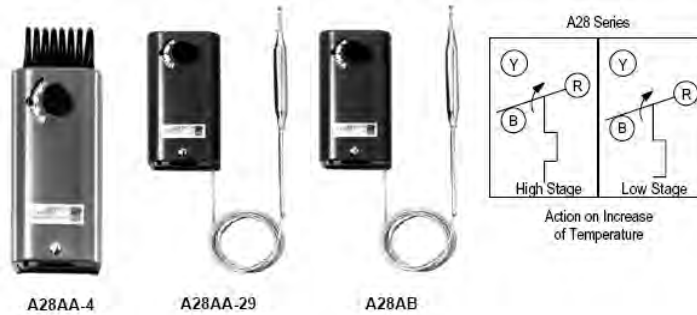


## JOHNSON CONTROLS - TWO STAGE TEMPERATURE CONTROL

### A28 Series

#### SELECTION CHART

*Coild Bulb-Fixed Differential*



#### DESCRIPTION

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

#### FEATURES

- Wide temperature ranges available
- Constant differential throughout the entire range
- SPDT snap action switches
- Unaffected by changes in barometric pressure
- Unaffected by cross ambient conditions
- Compact enclosure
- Variety of sensing element styles

#### APPLICATIONS

Temperature sensing applications requiring two stage control of HVAC/ Refrigeration equipment.

#### SPECIFICATIONS

Maximum bulb temperature:

- A28AA-37, 230°F (110°C)
- All others, 140°F (60°C)

#### ACCESSORIES

- Packing nut assembly available for direct immersion applications
- (Part No. FTG13A-600R)  
Remote bulb models include 5/8 in. mounting clip.

#### COILED BULB-FIXED DIFFERENTIAL

PART NO	SWITCH ACTION	RANGE °F(°C)	DIFF F°(C°)	Bulb and capillary	Bulb Well No.(order separately)	Range Adjuster
A28AA-4C	2-SPDT	30 to 110 (-1 to 43)	3 1/2(1.9) Ea.Stage 3(1.7)Fixed Between Stages	1 3/8 in.* 2 1/4 in.Coiled	--	Convertible

#### Case Compensated-Fixed differential

PART NO	SWITCH ACTION	RANGE °F(°C)	DIFF F°(C°)	Bulb and capillary	Bulb Well No.	Range Adjuster
A28AA-8C	2-SPDT	-30 to 50(34 to 10)	5(2.8) Ea.Stage 3(1.7)Fixed Between Stages	3/8 in. * 4 in.6 ft.Cap.	WEL14A-602R	Knob
A28AA-9C	2-SPDT(b)	20 to 80(-7 to 27)	3 1/2(1.9) Ea.Stage 3(1.7)Fixed Between Stages	3/8 in. * 5 in.6 ft.Cap(a).	WEL14A-603R	Knob

#### Wide Range-Adjustible interstage differential

PART NO	SWITCH ACTION	RANGE °F(°C)	DIFF F°(C°)	Bulb and capillary	Bulb Well No. (order seprately)	Range Adjuster
A28AA-28C	2-SPDT(d)	30 to 110(-1 to 43)	3 1/2 (1.9)Ea.Stage 2 to 7 Adj.Between Stages	12 ft averaging bulb 6 ft. Cap.	--	ScrewDriver Slot
A28AA-29C	2-SPDT(b)	-30 to 100(-34 to 38)	5(2.8)Ea.Stages 2 to 7 Adj.Between Stages	3/8 in.**4 in. 6 ft.Cap.	WEL14A-502R	Convertible
A28AA-36C	2-SPDT	40 to 90(4 to 32)	3 Ea.Stages 2 to 7 Adj. Between Stages	3/8 in.*5 3/4 in.6 ft. Cap.	--	Knob
A28AA-37C	2-SPDT	60 to 140(16 to 60)	5 Ea.Stage 2 to 7 Adj. Between Stages	3/8 in.*4 in.6 ft.CAP.	WEL14A-602R	Knob
A28AJ-4C	2-SPDT	20 to 80 (-7 to 27)	2 Ea.Stage 2 TO 7 adj. Between Stages	3/16 in.*22 in.6 ft.Cap.	--	Knob

#### ChangeOver Control

PART NO	SWITCH ACTION	RANGE °F(°C)	DIFF F°(C°)	Bulb and capillary	Bulb Well No. (order seprately)	Range Adjuster
A28AB-1C	2-SPDT(b)	20 to 80 (-7 to 27)	3 1/2 (1.9)	3/8 in.*5 in.6 ft. Cap.	WEL14A-603R	ScrewDriver Slot
A28AB-2C(c)	2-SPDT(d)	60 to 90(16 to 32)	6(2.8)	Strap-on Grid Blue 42 in.Cap.	--	ScrewDriver Slot

- Packing not assembly available for direct immersion applications (Par No.FTG13A-600R)
- Switches with in 1°F (0.6°C) of each other.
- Maximum sensing element temperature is 250°F (121°C)
- Switches within 5°F (3°C).

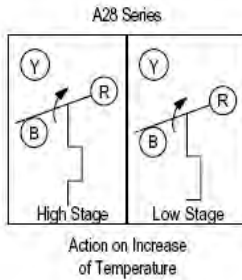
## JOHNSON CONTROLS - A28 SERIES TWO-STAGE FLANGE MOUNTED DUCT THERMOSTAT

### TWO-STAGE FLANGE MOUNTED DUCT THERMOSTAT

#### SELECTION CHART



A28AK



#### DESCRIPTION

The A28AK is a two-stage temperature control with special air coil sensing element and adjustable mounting flange.

#### APPLICATIONS

These duct thermostats are used on the roof top unit make up heaters, and air handling systems of all types.

#### FEATURES

- Flat flange mounting with special coils elements permits positioning of sensing bulb in the appropriate portion of the air stream.
- 2 SPDT snap acting switches.
- Unaffected by barometric pressure or cross ambient temperatures.

#### SELECTION CHART

PART NO	SWITCH ACTION	RANGE °F(°C)	NUMBER OF STAGES	DIFFERENTIAL F° (C°) FIXED		MAXIMUM ALLOWABLE TEMPERATURE AT BULB °F (°C)
				Each Stage	FIXED Between Stage	
A28AK-1	2-SPDT Switches	30 to 110 (-1 to 43)	2	2 (1.1)	3 (1.7)	140 (60)
A28AK-2	2-SPDT Switches	60 to 130 (16 to 54)	2	2 (1.1)	3 (1.7)	200 (93)

## JOHNSON CONTROLS - TWO STAGE INDUSTRIAL THERMOSTAT(Watertight and Dusttight)

### A28

#### SELECTION CHART



A28KA

#### DESCRIPTION

The A28KA is a wide range temperature control with gasketed enclosure and two SPDT switches.

#### APPLICATIONS

This control is for refrigeration, air conduction and heating applications. This control incorporates gasketed enclosures that can be used in a range of industrial and general purpose applications.

#### FEATURES

- Rugged steel enclosure
- Liquid filled sensing element that provides uniform control

#### SELECTION CHART

PART NO	SWITCH ACTION	Range	Diff	Bulb and Capillary	Bulb Well No. (order separately)	Range Adjuster
A28KA-1C	2-SPDT	0 to 150 (-15 to 65)	5 (2.5) Ea.Stage 3(1.7) Fixed Between stages	8.290 *2/1/2 in 10ftCap	WEL16A-600R	Knob

## JOHNSON CONTROLS - TWO STAGE TEMPERATURE CONTROL WITH WEATHERPROOF ENCLOSURE

A28

### SELECTION CHART



A28MA-1

#### DESCRIPTION

The A28MA controls are wide range temperature controls with rainproof NEMA 3R Enclosure and SPDT switches.

#### APPLICATIONS

- Sump water temperature control for cooling towers and evaporative condensers
- Fan cycling control to air cooled condensers

#### FEATURES

- Rugged steel enclosure
- Liquid filled sensing element (provides uniform control)

### SELECTION CHART

PART NO	SWITCH ACTION	Range F°(C°)	Diff F°(C°)	BULB AND CAPILLARY	Range Adjuster
A28MA-1C	2 Stage 2-SPDT Switches	40 to 120 (4 to 49)	Factory set 5(2.8) Each Stage 8 (4.4) Between Stages	3/8 in.*4in.Neaoprene Coated 6ft Cap	Screw Driver Slot
A28MA-2C	2 Stage 2 SPDT Switches	40 to 120 (4 to 49)		3/8 in* 4 1/6 in. 6 ft Cap.	Screw Driver Slot

## JOHNSON CONTROLS - TWO STAGE AGRICULTURAL THERMOSTAT WITH NEMA 4X ENCLOSURE

A28

### SELECTION CHART



A28PJ-1

#### DESCRIPTION

The A28PJ is a two stage electromechanical thermostat with rain tight & dust tight enclosure.

#### FEATURES

- Rugged thermoplastic gasketed enclosures that meet NEMA 4X specifications.
- O-ring sealed set point adjustment knobs.
- Range scale with oversized white markings for easy readability in low light.
- Exposed portion of liquid filled sensing elements are plated and plastic coated to resist damage in corrosive atmospheres.

#### APPLICATIONS

Designed for use in agricultural and industrial applications that require compliance with Article 547 of the National Electrical Code.

### SELECTION CHART

PART NO	SWITCH ACTION	Range F°(C°)	Diff F°(C°)	BULB AND CAPILLARY	Range Adjuster
A28PJ-1C	2-SPDT	30 to 110(-1 to 43)	2(1.1) Ea. Stage2-7 (1.1-3.9) Adj. Between Stages	1 3/8 in.*2 1/4 in. Coiled	Knob