

# Cartridge and Immersion Temperature Controllers

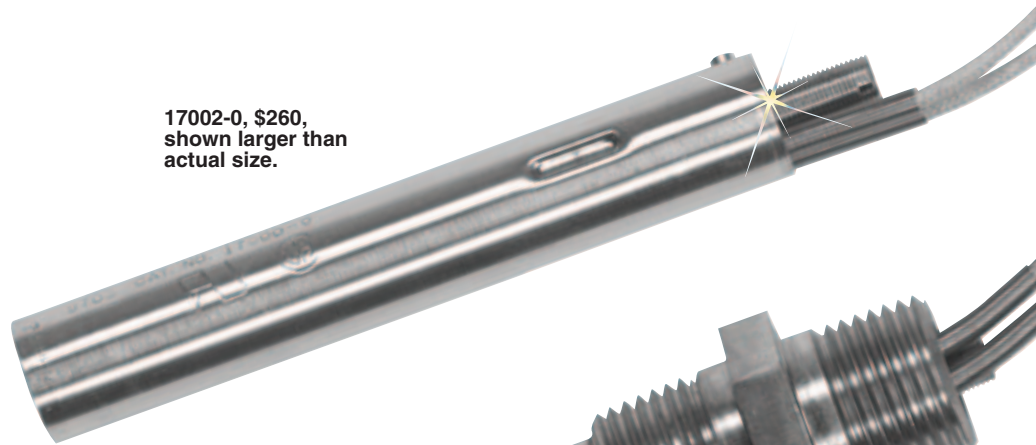
17000/18000 Series  
Starts at

**\$210**

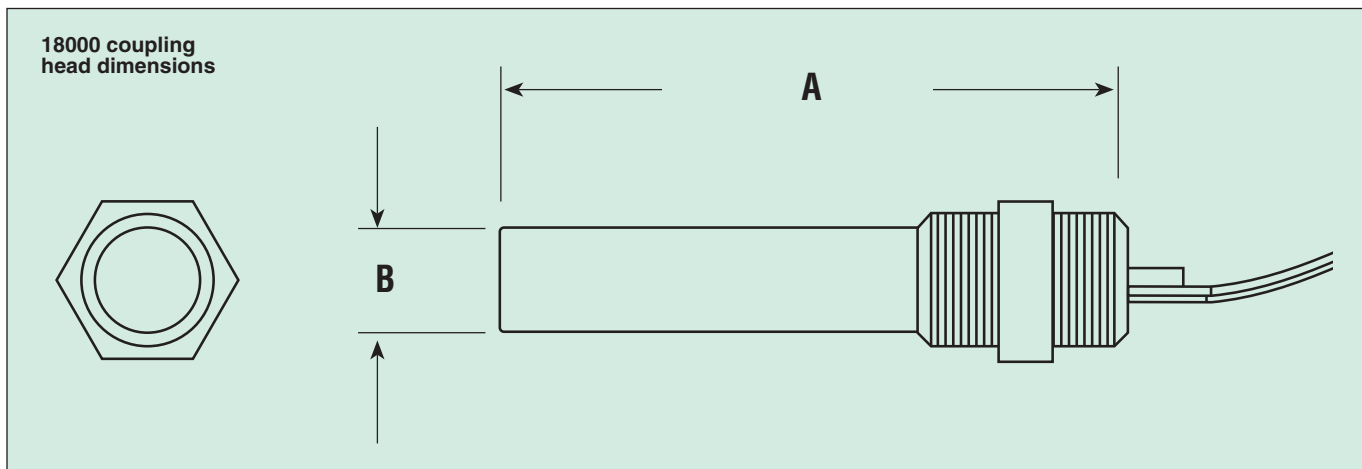
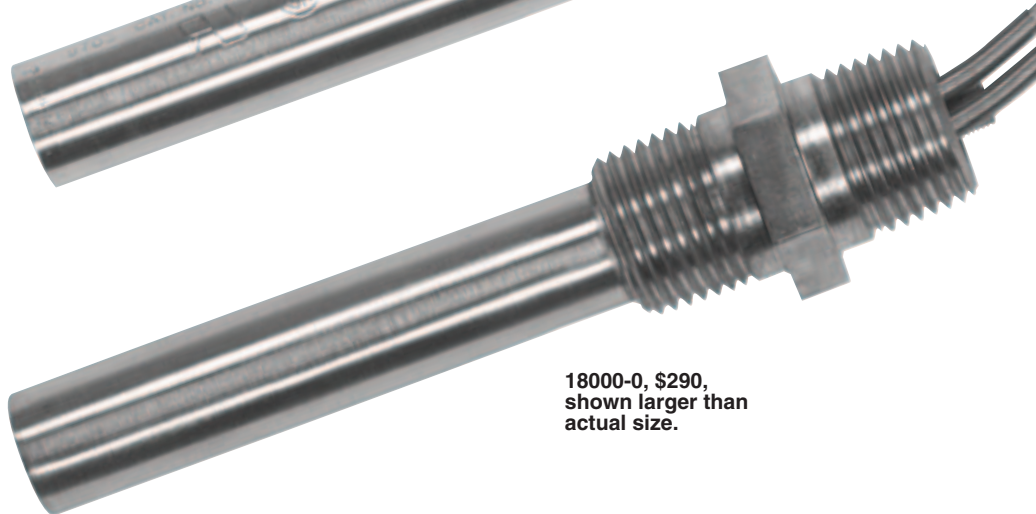


- ✓ Cartridge and Hex Head Immersion (17000 Series)
- ✓ Coupling Head Immersion (18000 Series)
- ✓ Non-Indicating
- ✓ -73 to 316°C (-100 to 600°F) Temperature Range
- ✓ Slow Make and Break SPST
- ✓ -17.7°C (0.1°F) Accuracy
- ✓ Not Recommended for Pilot Duty Switching of Mechanical Contactor

17002-0, \$260,  
shown larger than  
actual size.



18000-0, \$290,  
shown larger than  
actual size.



## Application

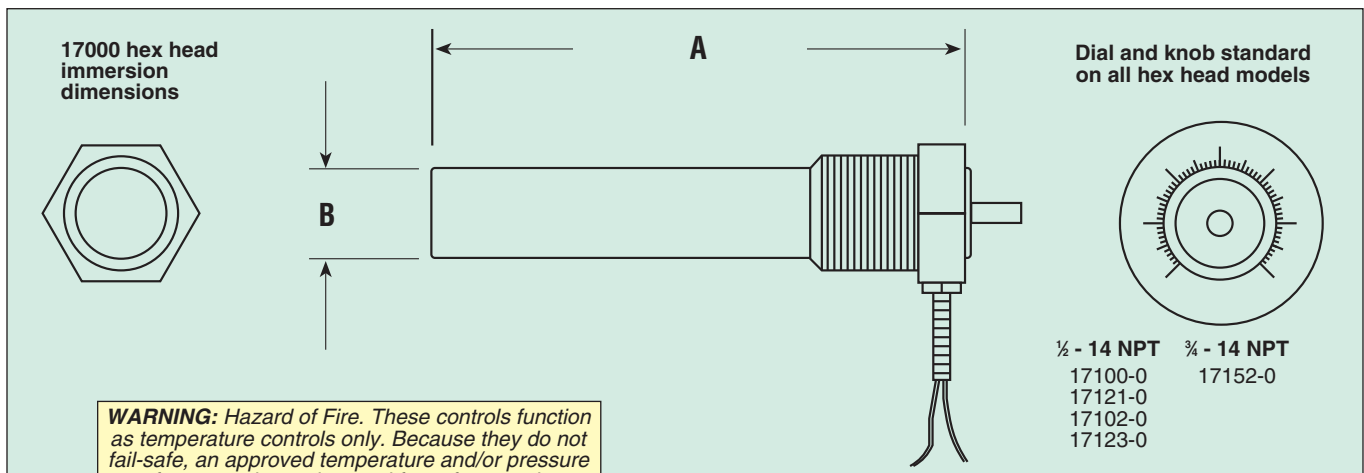
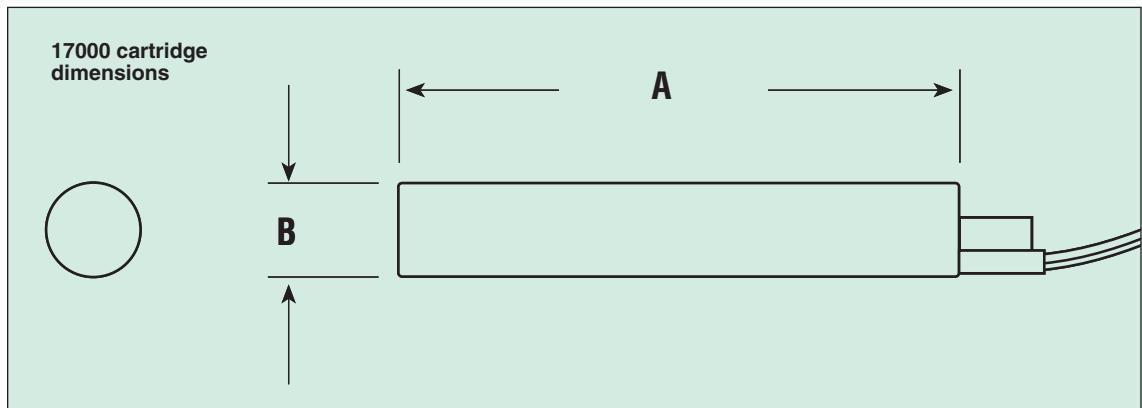
Cartridge type is designed for drilled hole cartridge heating installations in molding presses, platens, rubber vulcanizers, hot plates, etc.

## Features

- Adjustable range from -73 to 316°C (-100 to 600°F) offers wide field of application
- Resolution sensitivity of -17.7°C (0.1°F) offers close control of process

- Compact size; lengths under 127 mm (5") and diameters less than 20.6 mm (13/16") fit almost any application
- Fast response as external metal shell expands or contracts with each temperature change
- Sheathing is brass for low range units; stainless steel for higher temperature use

- Couplings for hex head and coupling head types are brass with standard pipe threads for mounting. Hex head and coupling head immersion types are screwed directly through the threaded opening in tank or duct or directly into a pipeline containing gas or liquid. The coupling head unit may be directly attached to electrical conduit by means of standard male pipe threads.



**WARNING:** Hazard of Fire. These controls function as temperature controls only. Because they do not fail-safe, an approved temperature and/or pressure safety control must be used for safe operation.

**MOST POPULAR MODELS HIGHLIGHTED!**

To Order (Specify Model Number)								
Model No.	Price	Temperature Range °C (°F)	Contact Operating/Temp Rise	Max Amps AC		Dimensions: mm (in)		Wt oz (lb)
				120V	240V	A	B	
<b>Cartridge Type</b>								
17000-0	\$210	-73 to 204 (-100 to 400)	Opens	10	5	94 (3.72)	16 (0.625)	32 (2)
17021-0	210	-73 to 204 (-100 to 400)	Closes	10	5	94 (3.72)	16 (0.625)	32 (2)
17002-0	260	-73 to 315 (-100 to 600)	Opens	10	5	94 (3.72)	16 (0.625)	32 (2)
17023-0	260	-73 to 315 (-100 to 600)	Closes	10	5	94 (3.72)	16 (0.625)	32 (2)
17052-0	285	-73 to 315 (-100 to 600)	Opens	25	12.5	94 (3.72)	20 (0.81)	48 (3)
<b>Hex Head Immersion Type (With Knob and Dial)</b>								
17100-0	\$285	-73 to 204 (-100 to 400)	Opens	10	5	109 (4.28)	16 (0.625)	80 (5)
17121-0	285	-73 to 204 (-100 to 400)	Closes	10	5	109 (4.28)	16 (0.625)	80 (5)
17102-0	350	-73 to 315 (-100 to 600)	Opens	10	5	109 (4.28)	16 (0.625)	80 (5)
17123-0	350	-73 to 315 (-100 to 600)	Closes	10	5	109 (4.28)	16 (0.625)	80 (5)
17152-0	400	-73 to 315 (-100 to 600)	Opens	25	12.5	119 (4.68)	20 (0.81)	128 (8)
<b>Coupling Head Immersion Type</b>								
18000-0	\$290	-73 to 204 (-100 to 400)	Opens	10	5	118 (4.65)	16 (0.625)	80 (5)
18021-0	320	-73 to 204 (-100 to 400)	Closes	10	5	118 (4.65)	16 (0.625)	80 (5)
18002-0	320	-73 to 315 (-100 to 600)	Opens	10	5	118 (4.65)	16 (0.625)	80 (5)
18023-0	320	-73 to 315 (-100 to 600)	Closes	10	5	118 (4.65)	16 (0.625)	80 (5)

Note: All models are UL recognized

Important: Connect 0.1 µf capacitor across switch leads on all 240 Vac applications.

Ordering Examples: 17100-0, immersion temperature controller, \$210.

18000-0, coupling head immersion type, \$290.

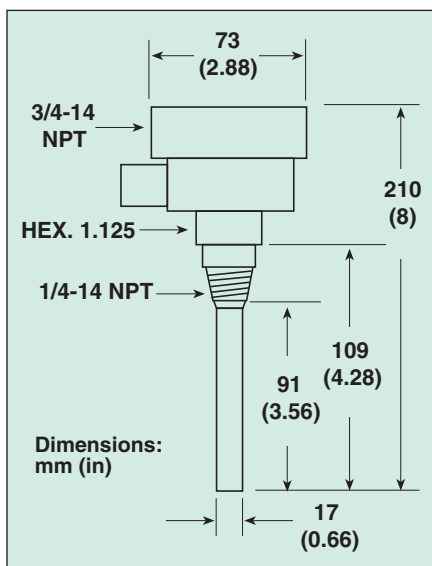
# Hazardous Location Immersion Temperature Controller

80000 Series  
Starts at  
**\$1450**



- ✓ Explosion Resistant Junction Box
- ✓ Non-Indicating
- ✓ Heliarc Welded Thermowell
- ✓ Tolerates Extreme Temperature Exposures
- ✓ 10 Amps at 120 Vac, 5 Amps at 240 Vac

The 80016 is an assembly consisting of a series 17000 or 47000 model, well assembly, and explosion-resistant junction box designed to meet the requirements of Class I, Group D, and Class II, Group E, F and G, Division 1 and 2 locations. The sensing element, which is a cartridge-type unit, is seated in the well assembly, and held in place by a snap ring. The well assembly, in turn, is threaded into the explosion-resistant junction box, giving protection to the controller. Not recommended for pilot duty switching of magnetic contactors.



## Specifications

**Well Assembly Pressure Ratings:**  
690 kPa at 120°C (100 psi at 250°F)  
415 kPa at 260°C (60 psi at 500°F)

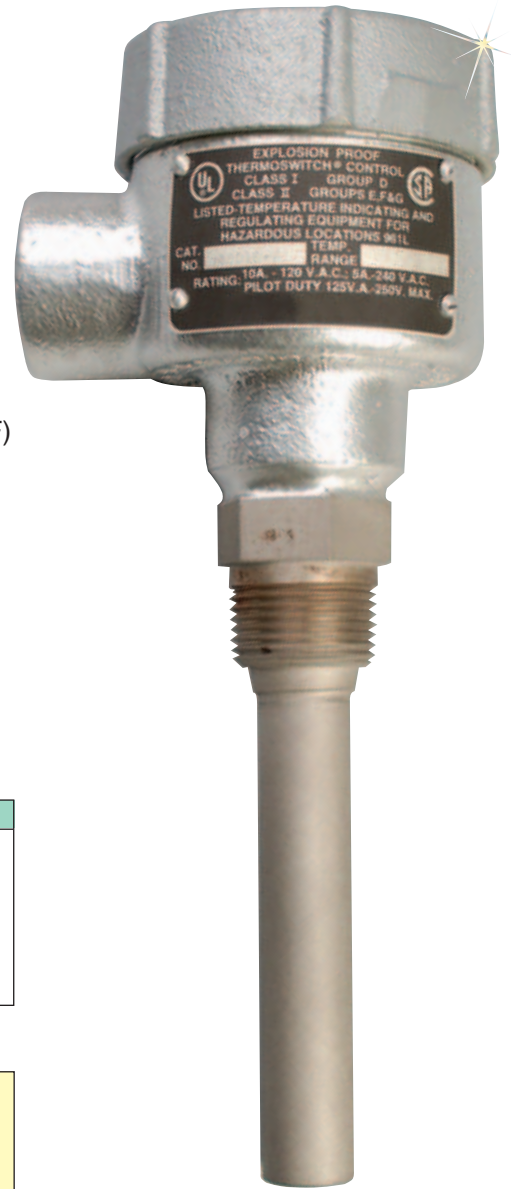
**Well Assembly Material:** Type 321 stainless steel

**Current Rating:** 10 A at 120 Vac;  
5 Amps at 240 Vac

**Extreme Temperature Exposures:**  
May be exposed to -74°C (-100°F) indefinitely; they may be exposed to high temperature for one hour maximum, refer to the chart.

Model No.	Temp. Exposure
80016-17000	100°F (55°C) above setpoint
80016-17021	500°F (260°C)
80016-47002	100°F (55°C) above setpoint
80016-47023	600°F (315°C)

**WARNING: Hazard of Fire.**  
These controls function as temperature controls only. Because they do not fail-safe an approved temperature and/or pressure safety control must be used for safe operation.



80016-17000, \$961, shown larger than actual size.

**MOST POPULAR MODELS HIGHLIGHTED!**

To Order (Specify Model Number)			
Model No.	Price	Temperature Range	Contact Operation on Temperature Rise
80016-17000	\$1450	-74 to 204°C (-100 to 400°F)	Opens
80016-17021	1450	-74 to 204°C (-100 to 400°F)	Closes
80016-47002	1560	-74 to 260°C (-100 to 500°F)	Opens
80016-47023	1560	-74 to 260°C (-100 to 500°F)	Closes

Ordering Example: 80016-17000, immersion temperature controller, \$1450.





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