

# FENWAL®

## SERIES 80016

### THERMOSWITCH® CONTROLLERS FOR HAZARDOUS LOCATIONS

The 34-080016-004 is an "Explosion Proof" well assembly designed to meet the requirements of Class I, Group D and Class II, Groups E, F, and G, Division 1 and 2 locations. The desired THERMOSWITCH controller must be ordered separately. The assembly is UL listed and CSA certified for these specific hazardous location categories.

The sensing element, which is a cartridge-type THERMOSWITCH 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-proof junction box, giving protection to the controller.

#### SPECIFICATIONS

##### Temperature Range and Contact Operation

Table 1

THERMOSWITCH Unit Catalog Number	Temperature Range	Contact Operation on Temperature Rise
01-017000-000	-100 to +400°F	Opens
01-017021-000	(-74 to +204°C)	Closes
01-047002-000	-100 to +500°F	Opens
01-047023-000	(-74 to +260°C)	Closes

##### Dimensions (Refer to photo)

- A = 8.00 ± 0.25 in (203.2 ± 6 mm)
- B = 4.28 ± 0.06 in (108.7 ± 1.6 mm)
- C = 3.56 ± 0.03 in (90.5 ± 0.8 mm)
- D = 0.656 + 0.004, -0 in (16.66 + 0.10, -0 mm)

##### Well Assembly Pressure Ratings

- 100 psi at 250°F (690 kPa at 120°C)
- 60 psi at 500°F (415 kPa at 260°C)

##### Well Assembly Material

Type 321 Stainless Steel

##### Current Rating

- 10 Amps at 120 VAC
- 5 Amps at 240 VAC

##### Extreme Temperature Exposure

THERMOSWITCH Units may be exposed to -100°F (-74°C) indefinitely. They may be exposed to high temperature for one hour maximum as follows:

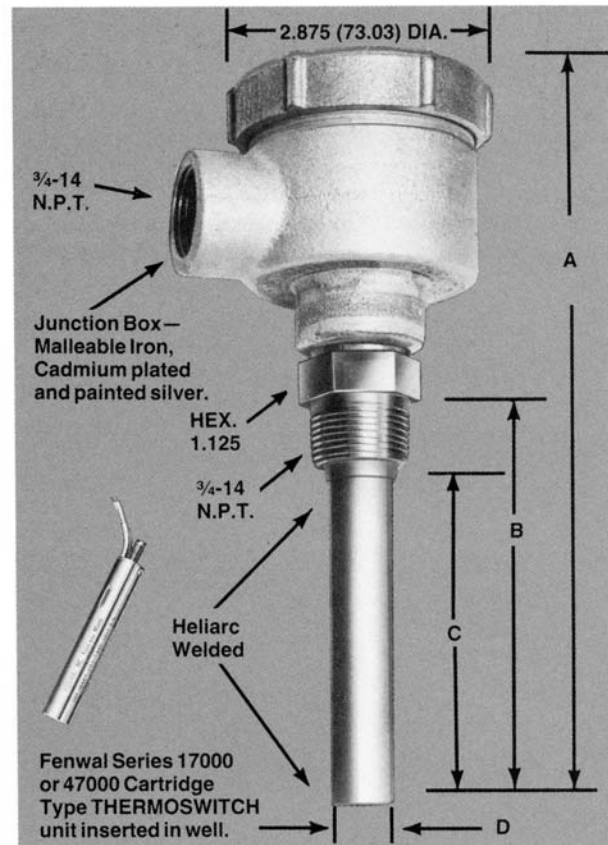


Table 2

THERMOSWITCH Unit	Maximum Temperature
01-017000-000	100°F (55°C) above set point
01-017021-000	500°F (260°C)
01-047002-000	100°F (55°C) above set point
01-047023-000	600°F (315°C)

Specifications subject to change without notice.

**WARNING:** Operation outside specifications could result in failure of the Fenwal product and other equipment with injury to people and property.

**Weight** (approximate) 2 pounds (.9 Kg)

##### AGENCY APPROVALS



Listed by Underwriters Laboratories (XBDV); U.L. File No. E19310.



Certified by Canadian Standards Association (Class 4868 01); CSA File No. LR7378.

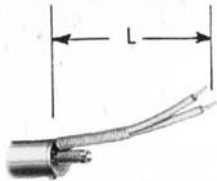
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## MODIFICATIONS

### MOD. 1 – Special Marking

Special marking may be applied to the shell portion of the well assembly. Amount of marking is limited to the space available. Marking is in 1/16 inch (1.6 mm) letters. Specify text of marking desired.

### MOD. 2 – Extended Lead Wire



Lead wires may be extended to any length. Length (L) is specified as the portion of lead wire outside the THERMOSWITCH Unit. Unless this modification is specified, units are shipped with lead wires 8 to 10 in. (20 to 25 cm) long.

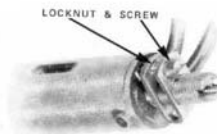
### MOD. 3 – Factory Temperature Setting

The THERMOSWITCH Unit may be preset at Fenwal to any temperature within its range to a minimum of 32°F (0°C) to the tolerance specified in Table 3. Unless this modification is specified, units are preset at approximately 75°F (25°C).

**Table 3**

THERMOSWITCH Unit	Tolerance
17000-0	± 5° from – 100 to + 100°F (– 74 to + 40°C)
47002-0	± 3° or 2% of setting (whichever is greater) from 100 to 500°F (40 to 260°C)
17021-0 47023-0	± 5° or 3% of setting (whichever is greater)

### Temperature Restraining Device 01-990040-000 (Mod 4)



A restraining device may be added to the THERMOSWITCH Unit to secure the temperature adjustment sleeve after the unit has been calibrated. This modification deters tampering with the setting. It also minimizes the possibility of a shift in calibration under conditions of severe vibration.

## SPECIAL FEATURE

### S.F. 31A – Extended Well Assembly

The shell of the well assembly may be extended in increments of 1 in (2.5 cm) to a maximum of 39 in (96 cm). The THERMOSWITCH Unit is also extended (S.F. 31) an equal amount.

**Example:** A well extended by 9 inches has a "C" dimension of 12.56 inches. Minimum order quantities apply.

## HOW TO ORDER

The Explosion-proof assembly and the THERMOSWITCH Assembly **must** be ordered separately as follows:

1. Assembly catalog number 80016.
2. THERMOSWITCH Unit catalog number from Table 1.
3. Modification or Special Feature number, if desired, with a detailed explanation.

**Example:** 80016 Assembly with 17000-0 THERMOSWITCH Unit and MOD. 3 set to 155°F and MOD. 4, Temperature Restraining Device.

This literature is provided for informational purposes only. KIDDE-FENWAL, INC. assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to perform as described herein.

If you need more information on this product, or if you have a question, contact KIDDE-FENWAL, INC., Ashland, MA 01721. (508) 881-2000.