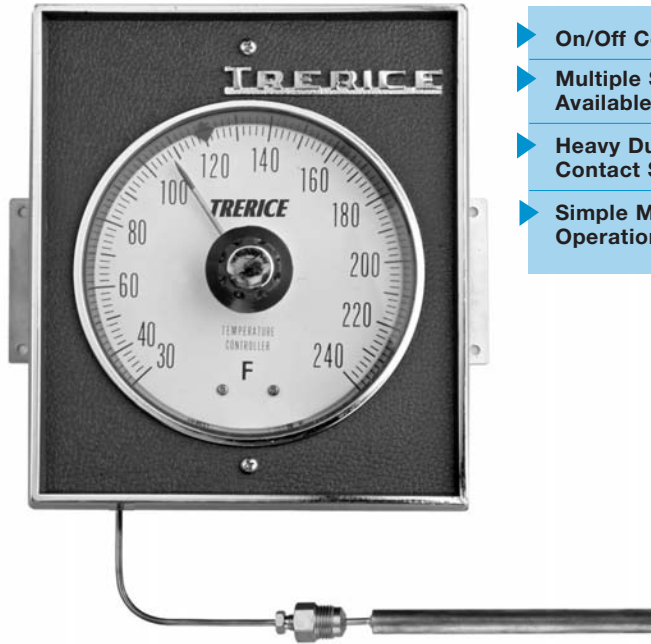


L84000 Series Electric Contact Controller

CONTROLLERS



L84000 shown

- ▶ On/Off Control
- ▶ Multiple Switches Available
- ▶ Heavy Duty Contact Switches
- ▶ Simple Mechanical Operation

Specifications

Models

- L84000** (1 switch)
- L84100** (2 switch)
- L84200** (3 switch)
- L84300** (4 switch)

Control On/Off, via electric contact switch

Dial Size 6"

Movement Stainless Steel and Brass

Case Blue ABS plastic, panel mounted

Cover Blue ABS plastic, close cell rubber gasketed

Window Acrylic

Pointer Brass

Switch Ratings

L84000, L84100:
10 A @ 125/250 VAC,
0.25 A @ 120 VDC

L84200, L84300:
5 A @ 250 VAC,
5 A res./3 A ind. @ 28 VDC

Dialface Aluminum, white background with black graduations and markings

Accuracy ± One Scale Division

Approximate Shipping Weight

9.0 lbs [4.09 kg]

The Trerice **L84000 Series** Electric Contact Controller is designed for applications that require the opening and closing of electric solenoid valves, heaters, and other electrical devices. It is a rugged and versatile controller, capable of producing "On/Off" control over a wide range of temperatures from -100°F to 700°F. This controller includes a setting adjustment knob and one or more SPDT electric contact switches.

For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the controller and facilitate its removal from the process. (Refer to page 212)

HOW TO ORDER

Sample Order Number: **L 84100 145 B10 10 W02**

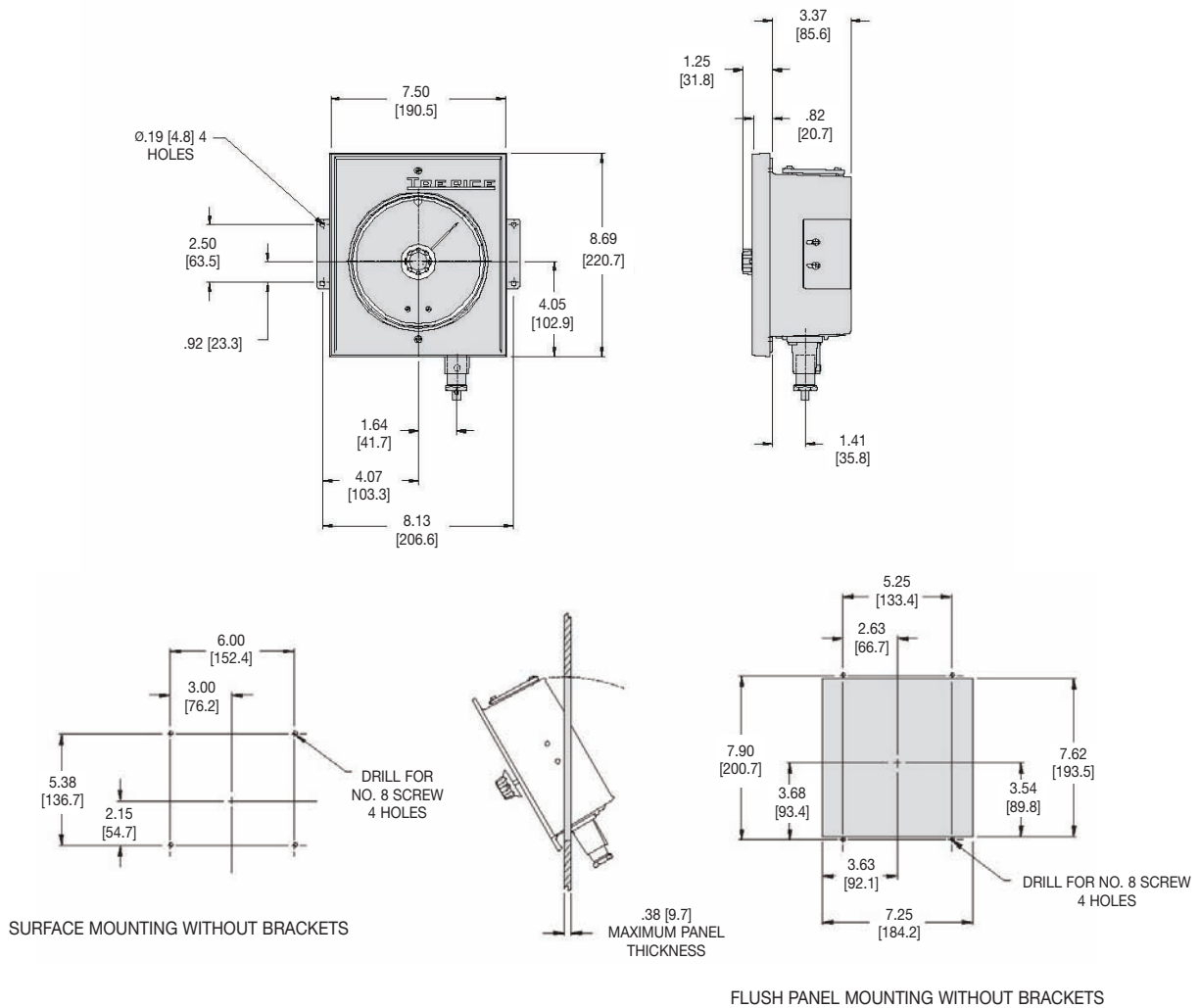
| Actuation | Model | Specific Range | Thermal System | Capillary Length | Thermowell |
|-----------|-----------------------|-------------------------------------|---|-------------------|--|
| L Liquid | 84000 1 Switch | Refer to Standard Ranges (page 209) | Refer to Thermal System Selection (pages 210-211) | 05 5 Feet | W02 Brass W05 304 SS W06 316 SS |
| | 84100 2 Switch | | | 10 10 Feet | |
| | 84200 3 Switch | | | 15 15 Feet | |
| | 84300 4 Switch | | | 20 20 Feet | W12 Brass W15 304 SS W16 316 SS |
| | 20 Feet Maximum | | | | |

L84000 Series

Electric Contact Controller

All dimensions are nominal. Dimensions in [] are in millimeters

CONTROLLERS



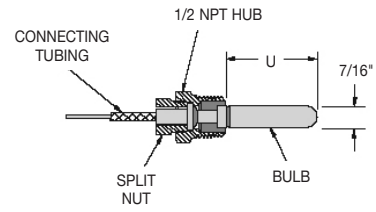
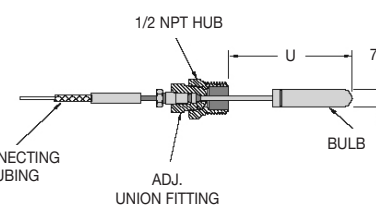
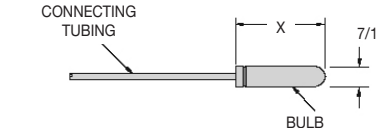
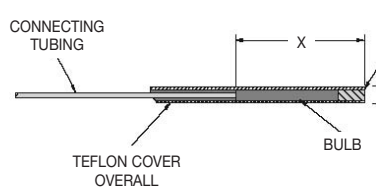
Standard Ranges

| Fahrenheit Ranges | | Celsius Ranges | | Fahrenheit & Celsius Ranges | |
|-------------------|----------------|----------------|--------------|-----------------------------|------------------------------|
| Range Code | Range | Range Code | Range | Range Code | Range |
| 105 | -100° to 100°F | 225 | -70° to 40°C | 325 | -30° to 170°F & -35° to 75°C |
| 125 | -30° to 170°F | 245 | -35° to 75°C | 345 | 50° to 350°F & 10° to 175°C |
| 145 | 0° to 200°F | 265 | 0° to 115°C | 355 | 50° to 700°F & 10° to 370°C |
| 165 | 30° to 240°F | 295 | 10° to 175°C | | |
| 175 | 50° to 350°F | 305 | 10° to 370°C | | |
| 195 | 50° to 700°F | | | | |
| 215 | 200° to 400°F | | | | |

Thermal System Selection

for L84000 Series Electronic Contact Controller

CONTROLLERS

| Bulb and Capillary Style | Order Code | Connection Style & Material | Bulb Material | Capillary Tubing Material |
|--|--------------|-----------------------------|--------------------------------------|---|
| Union Connection  | B01* | Brass, 1/2 NPT | Copper | Copper with Bronze Braided Armor |
| | B10 | Stainless Steel, 1/2 NPT | Stainless Steel | Stainless Steel |
| | B15* | Brass, 1/2 NPT | Copper | Copper with Bronze Braid and Stainless Steel Spiral Armor |
| | B16 | Stainless Steel, 1/2 NPT | Stainless Steel | Stainless Steel with Stainless Steel Spiral Armor |
| Adjustable Union Connection  | B02* | Brass, 1/2 NPT | Copper | Copper with Bronze Braided Armor |
| | B04** | Stainless Steel, 1/2 NPT | Stainless Steel | Stainless Steel |
| Plain Bulb  | B05* | None | Copper | Copper with Bronze Braided Armor |
| | B06 | None | Stainless Steel | Stainless Steel |
| Teflon Covered Bulb  | B08* | None | Copper with Teflon Covering | Copper with Teflon Covering |
| | B07* | None | Stainless Steel with Teflon Covering | Stainless Steel with Teflon Covering |

*Not available with Temperature Ranges over 450°F (232°C).

**Ranges over 450°F (232°C), one-time adjustment only.

Thermal System Selection

for L84000 Series Electronic Contact Controller

Minimum Bulb Insertion Length (U/X)

Liquid Actuated

Temperature Range

| -100° to 100°F | -30° to 170°F 0° to 200°F 30° to 240°F 200° to 400°C | 50° to 350°F | 50° to 700°F |
|------------------------------|---|------------------------------|--------------|
| 37/8" (Use 6" thermowell) | 53/8" | 37/8" (Use 6" thermowell) | N/A |
| 37/8" (Use 6" thermowell) | 53/8" | 37/8" (Use 6" thermowell) | 15/8" |
| 37/8" (Use 6" thermowell) | 53/8" | 37/8" (Use 6" thermowell) | N/A |
| 37/8" (Use 6" thermowell) | 53/8" | 37/8" (Use 6" thermowell) | 15/8" |
| 37/8" | 53/8" | 37/8" | N/A |
| Adjustable up to 24" | | | |
| 37/8" | 53/8" | 37/8" | 15/8" |
| Adjustable up to 24" | | | |
| 4" | 51/2" | 4" | N/A |
| 4" | 51/2" | 4" | 111/16" |
| N/A | 22" | 15" | N/A |
| N/A | 22" | 15" | N/A |

CONTROLLERS

Thermowells

for L84000 Electric Contact Controllers

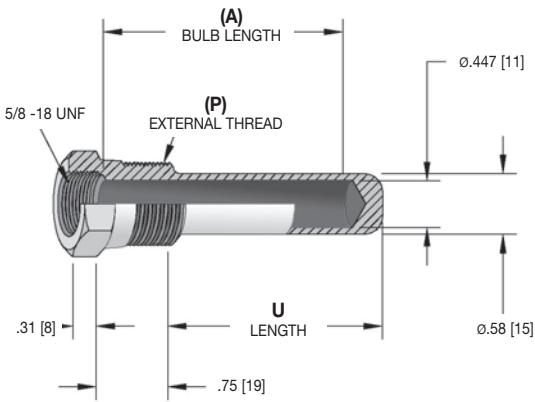
All dimensions are nominal. Dimensions in [] are in millimeters.

If Thermowells are to be purchased as a separate item, or if a Special Thermowell is required, please refer to this page. If a complete Electric Contact Controller is purchased, the proper Thermowell to match the sensing bulb ordered will be supplied. Please note sensing bulb size is affected by temperature range.

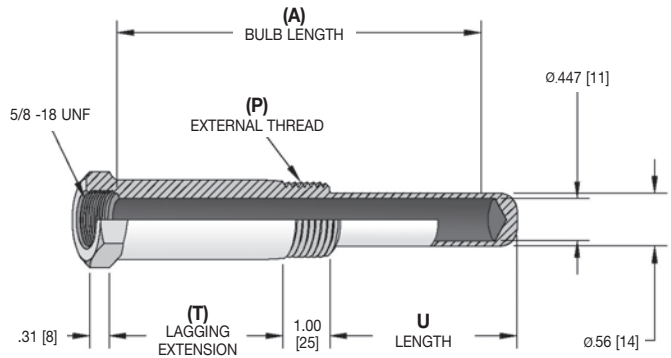
Indicate W02 for 1/2 NPT Brass, W05 for 1/2 NPT 304 SS or W06 for 1/2 NPT 316SS.
Indicate W12 for 3/4 NPT Brass, W15 for 3/4 NPT 304 SS or W16 for 3/4 NPT 316SS.

CONTROLLERS

Standard



with Lagging Extension



Lengths

| (A) Bulb Length | Standard | | Lagging | |
|--------------------|-------------|-----------------------|-------------|--|
| | U Length | (T) Lagging Extension | U Length | |
| 2" | 2.13 [54] | — | — | |
| 4" | 3.88 [99] | 1.50 [38] | 2.13 [54] | |
| 6" | 5.75 [146] | 1.50 [38] | 3.88 [99] | |
| 8" | 7.75 [197] | 1.50 [38] | 5.75 [146] | |
| 12" | 11.75 [299] | 1.50 [38] | 7.50 [191] | |
| 18" | 17.75 [451] | 1.50 [38] | 15.75 [400] | |
| 24" | 23.75 [603] | 1.50 [38] | 21.75 [552] | |

Pressure Rating (psi) per ASME Boiler Code, Section VIII, Part UG28

| Material | Operating Temperature | | | |
|---------------------|-----------------------|-------|--------------|-------|
| | 70°F | 200°F | 400°F | 600°F |
| Carbon Steel | 2500 | 2240 | 2020 | 1640 |
| 304 Stainless Steel | 2780 | 2280 | 2100 | 1700 |
| 316 Stainless Steel | 2770 | 2660 | 2500 | 2300 |
| Brass | 1330 psi @ 150°F | | 1280 @ 350°F | |

Selection of the proper thermowell is the sole responsibility of the user. Temperature and pressure limitations must be considered. Improper application may cause failure of the thermowell, resulting in possible personal injury or property damage.

HOW TO ORDER

Sample Order Number: **7-3 G 2**

| Thermowell Style | (P) External Thread | Bulb Length** | (T) Lagging Extension | Material |
|------------------|---------------------|---------------|--|-------------------------------|
| 7- Controller | 3 1/2 NPT | D 2" Bulb | C 1 1/2" Extension (4" and longer Stem only) Omit if None | 2 Brass 5 304SS 6 316SS |
| | | G 4" Bulb | | |
| | J 6" Bulb | | | |
| | L 8" Bulb | | | |
| | R 12" Bulb* | | | |
| | Wa 18" Bulb* | | | |
| | Wk 24" Bulb* | | | |

*Not available with 1/2 NPT external thread.

**Controller Thermowells with Bulb Lengths over 6" are typically for use with Adjustable Union or Bendable Extension Connections.