# Hazardous Location

Flame-Proof Heat-Tracing RTD assemblies are made for use in IEC hazardous areas.  They are designed to extinguish flames inside the device, eliminating the potential for ignition of flammable mixtures in the surrounding atmosphere. They are typically used in systems that measure the surface temperature of process pipe that is carrying products whose temperatures must be controlled to prevent freeze-up, or to maintain a viscosity level so that the inner medium will flow.  ATEX and IECEx certified assemblies are rated for  Ex db IIC Gb and Ex tb IIIC Db locations for applications with process temperatures of 180 °C or less. These RTDs are offered in a variety of temperature ranges and are supplied with a 316SS sheath, and a 3/4" radius stainless steel mounting pad.



1" X 2" X R3/4"
WELD PAD,
18 GAUGE,
304 SST

2"
HOT LEG
90° BEND, R1/2"
COLD LEG

CE Ex
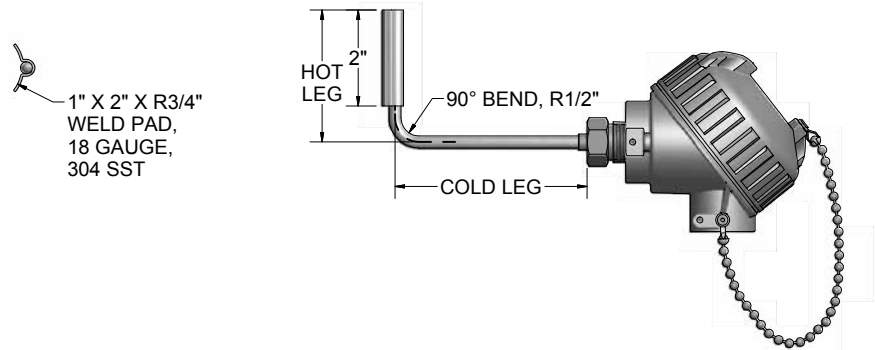
## ORDER CODES

### Example Order Number:

| 1-0 | 2-0 | 2-1 | 2-2 | 3-0 | 4-0 | 5-0 | 5-1 |
|------|---------|-----|-----|------|------|-----|-----|
| HL06 | RBF185L | 48 | 3 | HT | 0304 | 18RD | 93, I |

### 1-0   Agency Approval

| CODE | DESCRIPTION |
|------|-------------|
| HL06 | ATEX/IECEx flame-proof-certified assembly |

### 2-0   100 Ω Platinum RTD Elements α = 0.003 85 °C$^{-1}$

| CODE | | TOLERANCE[1] | TEMP. RANGE |
|------|------|-----------|-------------|
| *SINGLE* | *DUPLEX* | | |
| R1T185L | R1T285L | Grade B | (-200 to 200) °C |
| R5T185L | R5T285L | (1/5) Class B | (-30 to 150) °C |
| RBF185L | RBF285L | Class B | (-50 to 200) °C |
| RAF185L | RAF285L | Class A | (-30 to 200) °C |
| R1T185H | R1T285H | Grade B | (-200 to 600) °C |
| RAT185H | RAT285H | Class A | (-100 to 450) °C |

[1] Refer to RTD tolerance information in the General Information section for calculations to determine specific tolerance at temperature.

#### 2-1   Sheath Diameters

| CODE | DIAMETERS (inches) 316 SS |
|------|---------------------------|
| 48 | 1/4 |
| 68 | 3/8 |

[1] Not available in duplex

#### 2-2  Element Connection

| CODE | DESCRIPTION |
|------|-------------|
| 2 | 2-wire element |
| 3 | 3-wire element |
| 4 | 4-wire element |

### 3-0   Sheath Lengths

| CODE | HOT LEG (inches) | COLD LEG (inches) |
|------|------------------|-------------------|
| 0304 | 3 | 4 |
| 0306 | 3 | 6 |
| 0308 | 3 | 8 |

Consult factory for other hot leg lengths or cold leg lengths.

### 4-0   Radius Mounting Pads
1" W x 2" L x 18 Ga. 304 SS

| CODE | RADIUS (inches) | NPT PIPE SIZE (inches) |
|------|-----------------|------------------------|
| 18RD | 3/4 | 1 1/2 |

Mounting pad is flexible enough to be formed around pipe sizes from 1" to 12" NPS pipe.

### 5-0   Standard Head Terminations

| CODE | DESCRIPTION |
|------|-------------|
| 75T-142E | (4 to 20) mA HART® Field Transmitter with aluminum flame-proof housing |
| 76T71-D10 | (4 to 20) mA isolated programmable transmitter with digital display and explosion-proof aluminum housing |
| 76T72-D10 | (4 to 20) mA isolated programmable HART® transmitter with digital display and explosion-proof aluminum housing |
| 76T82-D10 | (4 to 20) mA dual input HART® Field Transmitter with digital display and explosion-proof aluminum housing |
| 93 | Aluminum flame-proof head |
| 94 | 316L stainless steel flame-proof head |

### 5-1   Standard Head Options

| CODE | DESCRIPTION |
|------|-------------|
| I | Stainless Steel Tag |
| SB | 1/2" NPT conduit reducer bushing |
| M2 | M20x1.5 conduit reducer bushing, Nickel Plated Brass |
| M5 | M25x1.5 conduit reducer bushing, Nickel Plated Brass |
| T71-00 | 4-20 mA isolated head-mounted transmitter |
| T72-00 | 4-20 mA HART® isolated head-mounted transmitter |
| T82-00 | (4 to 20) mA dual input HART® head-mounted transmitter |

**See transmitter ordering information in back of section**

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