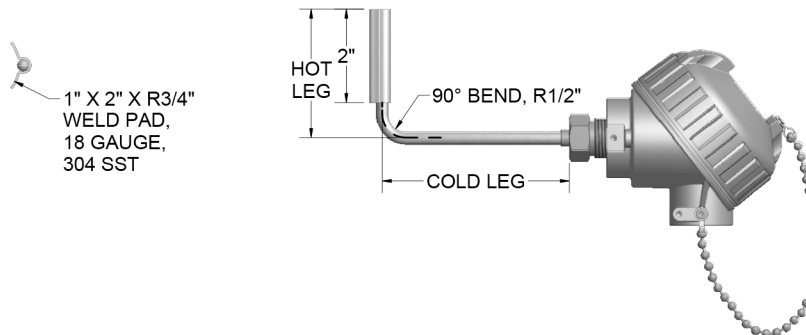


Heat-tracing RTDs are made for use in systems that measure the surface temperature of process pipe that is carrying products whose temperatures must be controlled to prevent freeze-up, or to maintain a viscosity level so that the inner medium will flow. These sensors are constructed with RTD sensing elements inside 316SS sheaths, and with a 3/4" Radius stainless steel mounting pad. Cold legs are available in customer-specified lengths to accommodate pipe insulation thickness.



### ORDER CODES

**Example Order Number:**

1-0 1-1 1-2 2-0 3-0 4-0 4-1  
**RBF185L 48 3 - HT - 0304 - 18RD - 31, I**

**1-0 100  $\Omega$  Platinum RTD**  
**Elements  $\alpha = 0.00385\ ^\circ\text{C}^{-1}$**

CODE		TOLERANCE <sup>[1]</sup>	TEMP. RANGE
SINGLE	DUPLEX		
R1T185L	R1T285L	Grade B	(-200 to 200) $^\circ\text{C}$
R5T185L	R5T285L	(1/5) Class B	(-30 to 150) $^\circ\text{C}$
RBF185L	RBF285L	Class B	(-50 to 200) $^\circ\text{C}$
RAF185L	RAF285L	Class A	(-30 to 200) $^\circ\text{C}$
RBF185M	RBF185M	Class B	(-50 to 482) $^\circ\text{C}$
R1T185H	R1T285H	Grade B	(-200 to 600) $^\circ\text{C}$
RAT185H	RAT285H	Class A	(-100 to 450) $^\circ\text{C}$

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

#### 1-1 Sheath Diameters

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

#### 1-2 Element Connection

CODE	DESCRIPTION
2	2-wire element
3	3-wire element
4 <sup>[1]</sup>	4-wire element

[1] Not available with 440 Series Transmitter

#### 2-0 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.

**3-0 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.

#### 4-0 Standard Head Terminations

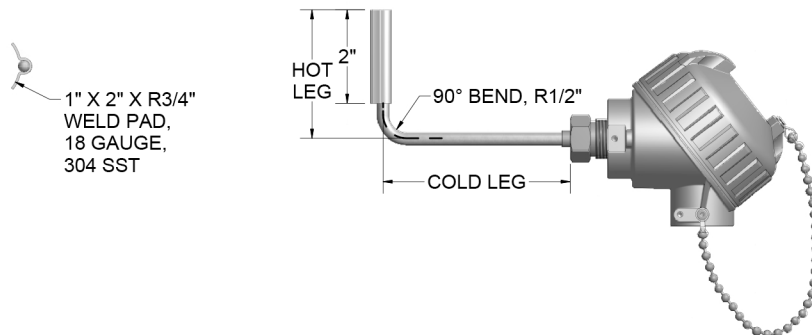
CODE	DESCRIPTION
31	Aluminum screw-cover head
34	Cast iron screw-cover head
35T-642A	(4 to 20) mA HART® Field Transmitter with aluminum general-purpose housing
36T82-D10	(4 to 20) mA dual input HART® transmitter with digital display and general-purpose aluminum housing with glass lid
37T-662A	(4 to 20) mA HART® Field Transmitter with general-purpose aluminum housing
49	Flip-top aluminum head
63	White polypropylene screw-cover head
91	316 L Stainless steel screw-cover head
93	Aluminum explosion-proof/flame-proof head, NEC, IEC, Atex approved
94	316L stainless steel explosion-proof/flame-proof head, NEC, IEC, Atex approved

**4-1 Standard Head Options**

CODE	DESCRIPTION
CG	Nylon cord grip
GS	Ground screw
I	Stainless steel tag
NB	1/2" NPT nylon conduit reducer bushing
SB	1/2" NPT conduit reducer bushing
T-440	4-20 mA head-mounted RTD transmitter (see instrument section)
T-441	4-20 mA isolated head-mounted transmitter (see instrument section)
T-442	4-20 mA HART® isolated head-mounted transmitter (see instrument section)
T82-00	(4 to 20) mA dual input HART® head-mounted transmitter

HART® is a registered trademark of HART Communication Foundation.

Heat-tracing Thermocouples are made for use 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. These sensors are constructed with Thermocouple sensing elements inside 316SS sheaths, and with a 3/4" Radius stainless steel mounting pad. Cold legs are available in customer-specified lengths to accommodate pipe insulation thickness.



### ORDER CODES

**Example Order Number:**

1-0 1-1 1-2 2-0 3-0 4-0 4-1  
**J P48 U - HT - 0304 - 18RD - 31, I**

#### 1-0 Thermocouple Types

CODE	
SINGLE	DUPLEX
E	EE
J	JJ
K	KK
T	TT

#### 1-1 316 SS Sheath Diameters and Insulation Types

CODE	DIAMETERS (inches)	INSULATION TYPE
48	1/4	MgO
68	3/8	MgO
P48	1/4	Fiberglass
P68	3/8	Fiberglass

#### 1-2 Measuring Junction

CODE	DESCRIPTION
G	Grounded junction
U	Ungrounded junction
ELEMENT OPTIONS	
M	Special Limits of Error

#### 2-0 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.

#### 3-0 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.

#### 4-0 Standard Head Terminations

CODE	DESCRIPTION
31	Aluminum screw-cover head
34	Cast iron screw-cover head
35T-642A	(4 to 20) mA HART® Field Transmitter with aluminum general-purpose housing
36T82-D10	(4 to 20) mA dual input HART® transmitter with digital display and general-purpose aluminum housing with glass lid
37T-662A	(4 to 20) mA HART® Field Transmitter with general-purpose aluminum housing
49	Flip-top aluminum head
63	White polypropylene screw-cover head
91	316 L Stainless steel screw-cover head
93	Aluminum explosion-proof/flame-proof head, NEC, IEC, Atex approved
94	316L stainless steel explosion-proof/flame-proof head, NEC, IEC, Atex approved

#### 4-1 Standard Head Options

CODE	DESCRIPTION
CG	Nylon cord grip
GS	Ground screw
I	Stainless steel tag
NB	1/2" NPT nylon conduit reducer bushing
SB	1/2" NPT conduit reducer bushing
T-441	4-20 mA isolated head-mounted transmitter (see instrument section)
T-442	4-20 mA HART® isolated head-mounted transmitter (see instrument section)
T82-00	(4 to 20) mA dual input HART® head-mounted transmitter

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