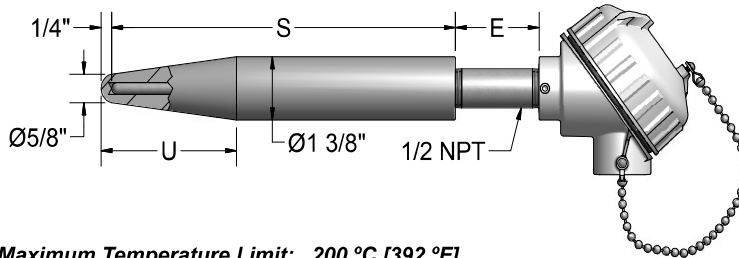


The Weld-In RTD temperature sensor assemblies listed below are commonly used in the food, dairy, beverage, pharmaceutical, and chemical processing industries. The complete assemblies are provided with a 3-wire platinum RTD element sealed inside a 1/4" O.D., spring-loaded, stainless steel sheath, and with a heavy wall sanitary protection well. Thermowells are supplied with a surface finish that meets or exceeds 32µin R<sub>a</sub>. Surface finishes of 15µin R<sub>a</sub> or better are available upon request. The well is to be welded into a tank or vat with a full crevice-free fillet-weld to prevent corrosion, bacteria growth, and product contamination. Assemblies are provided with a white FDA compliant polypropylene connection head. The complete assembly provides excellent washdown protection.



Maximum Temperature Limit: 200 °C [392 °F]

### ORDER CODES

**Example Order Number:** **1-0** **1-1** **2** **3** **4** **5**  
**R1T185L48** **3** - **W81-18** - **SL** - **8PN4** - **63**

#### 1-0 Pt100 (α = 0.003 85 °C<sup>-1</sup>) RTD Assemblies

CODE	TOLERANCE <sup>[1]</sup>	NORMAL SHEATH DIAMETER O.D. (inches)
<b>SINGLE</b>		
R1T185L48	Grade B	1/4
R3T185L48	Class AA	1/4
R5T185L48	(1/5) Class B	1/4
RAF185L48	Class A	1/4
<b>DUPLEX</b>		
R1T285L48	Grade B	1/4
R3T285L48	Class AA	1/4
R5T285L48	(1/5) Class B	1/4
RAF285L48	Class A	1/4

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

#### 1-1 Element Connection

CODE	DESCRIPTION
3	3-Wire Element
4 <sup>[1]</sup>	4-Wire Element

[1] Not Available in Duplex

**Example Order Number:** **W81-18**

PART NUMBER	S LENGTH (inches)	U LENGTH (inches)
W81-18	8 (1/4)	3 (1/4)
W81-28	9 (7/8)	3 (1/4)
W81-38	11 (5/8)	5
W81-48	12 (7/8)	3 (3/4)

#### 2 Weld - In Wells

CODE	WELL DIMENSIONS (inches)	
	S	U
316SS		
W81-18	8 (1/4)	3 (1/4)
W81-28	9 (7/8)	3 (1/4)
W81-38	11 (5/8)	5
W81-48	12 (7/8)	3 (3/4)

#### 3 Element Style

CODE	DESCRIPTION
SL <sup>[1]</sup>	Spring-loaded element
SC	Self-contained spring-loaded element

[1] Not available with 35, 36, or 37 Series Transmitters

#### 4 Head Extensions

CODE	DESCRIPTION
8HN	316SS 1/2" NPT hex fitting
8PN(E)	316SS pipe nipple (specify length in inches)

#### 5 Terminations

CODE	DESCRIPTION
91	316L stainless steel screw-cover head
63	White polypropylene screw-cover head
31,W	Aluminum screw-cover head with white epoxy coating
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

#### Head Options

T-440	(4 to 20) mA head-mounted RTD transmitter
T-441	(4 to 20) mA isolated head-mounted transmitter
T-442	(4 to 20) mA isolated HART® head-mounted transmitter
T82-00	(4 to 20) mA dual input HART® head-mounted transmitter
I	Stainless steel tag

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