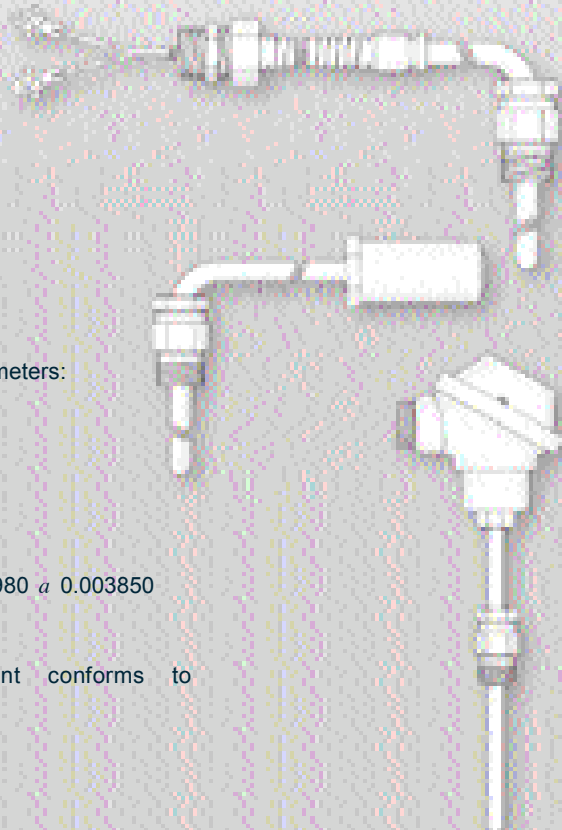


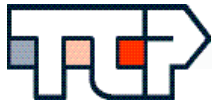
# Turbine RTDs

Turbine RTD's are used for bearing temperature measurement which provides safe and accurate monitoring. The RTD designs offer a resistance value of 100 ohms, linear over a wide operating range with a resistance tolerance of +/- .1% at 0 C.

## Features

- Available in a wide variety of configurations.
- 304 stainless steel protection tubes in a variety of diameters: 1/2" O.D., 3/8" O.D., 1/4" O.D., 3/16" O.D., 1/8" O.D.
- Custom fittings are available.
- 2, 3 or 4 wire, single or duplex.
- Standard sensors are Pt. 100, DIN 43760-1980  $\alpha$  0.003850 other temperature coefficients available.
- NIST traceable calibration equipment conforms to MIL-STD-45662A.
- Certified ISO 9001:2000





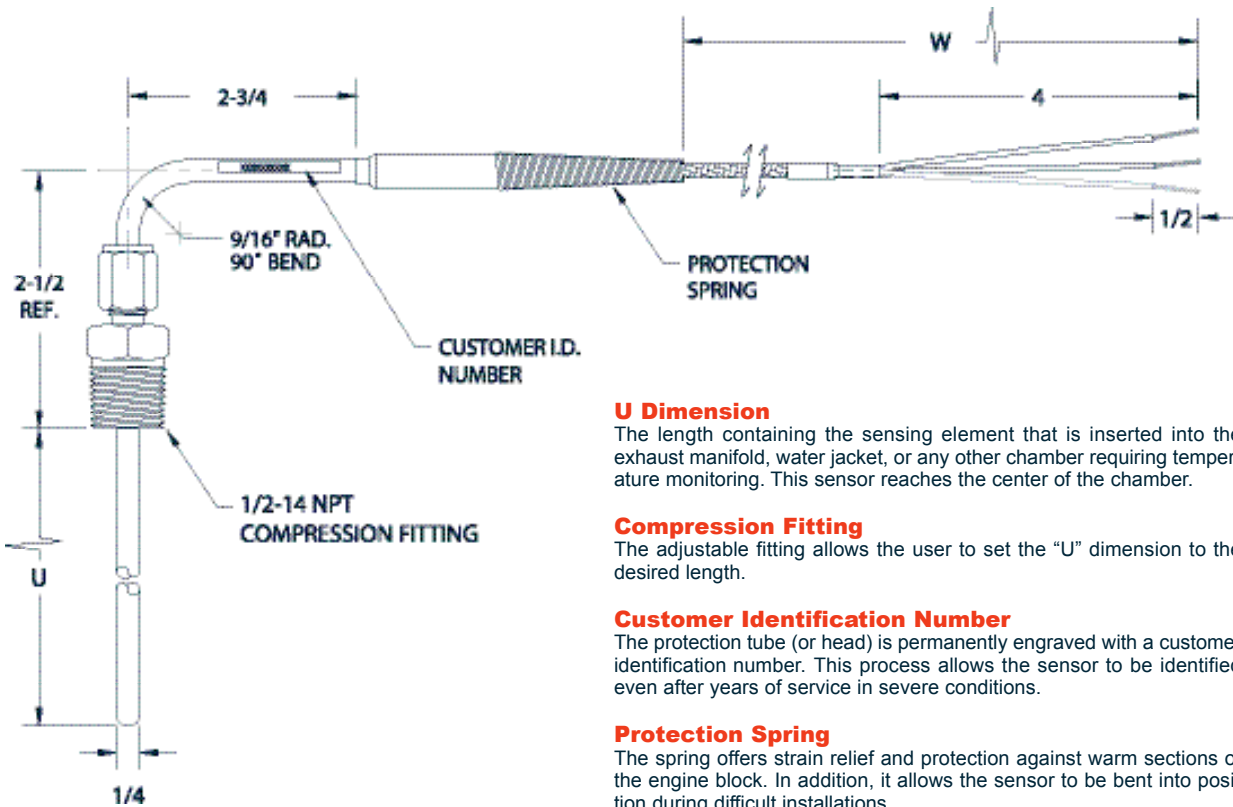
## TURBINE RTDs GENERAL DESCRIPTION

The popularity of RTDs has increased as control systems have become more complicated. RTDs offer a linear signal that is easy for today's instrumentation to interpret. In addition, RTDs offer superior accuracy and stability.

### Features

- Available in a wide variety of configurations.
- Stainless steel protection tubes in a variety of diameters: 1/2 in. O.D., 3/8 in. O.D., 3/16 in. O.D., 1/8 in. O.D.
- Custom fitting available
- 3 or 4 wire
- All sensors are Pt. 100, DIN 43760-1980  $\alpha$  0.003850
- NIST traceable calibration equipment conforms to MIL-STD-45662A
- Certified to ISO 9001:2000 BS EN 9001, and ANSI/ASQC Q9001:2000

## ANATOMY OF AN TURBINE RTD



### U Dimension

The length containing the sensing element that is inserted into the exhaust manifold, water jacket, or any other chamber requiring temperature monitoring. This sensor reaches the center of the chamber.

### Compression Fitting

The adjustable fitting allows the user to set the "U" dimension to the desired length.

### Customer Identification Number

The protection tube (or head) is permanently engraved with a customer identification number. This process allows the sensor to be identified even after years of service in severe conditions.

### Protection Spring

The spring offers strain relief and protection against warm sections of the engine block. In addition, it allows the sensor to be bent into position during difficult installations.

### W Dimension

The length of the wire needed to reach the extension wire connection box. This is usually a standard electrical box mounted to the engine or a nearby solid object, such as a strut.

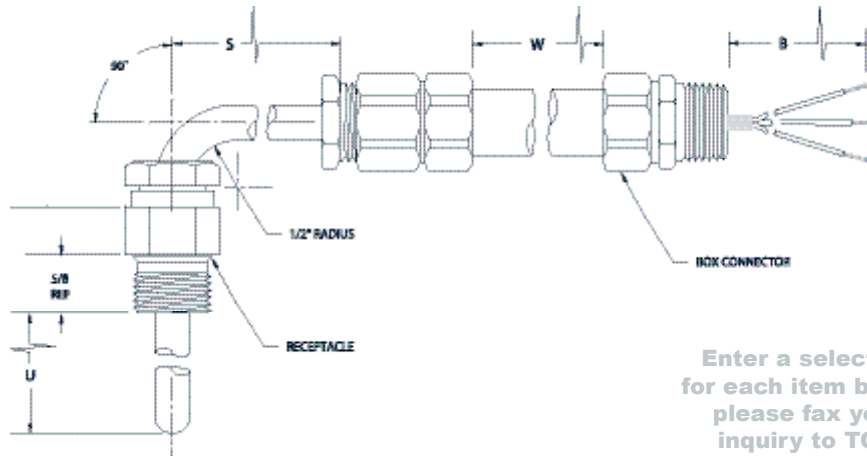
### Termination

RTDs do not always require a termination. Instead, the insulation is removed to expose the bare wire.

# WATERPROOF TURBINE RTD

## Part # 664-800-000

- High temperature thermoplastic rubber extruded cover protects sensor from liquid contamination.
- Glass braid insulation with stainless steel overwrap.
- 3/8 in. 304 stainless steel overwrap
- Galvanized steel core protection conduit
- Compression fitting available for adjustable insertion depths
- PT100 DIN 43760-1980 *a* 0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

**Configuration Number: 664-800-000**

ITEM	TERMINATION
A	No termination, 1/2 in. bare wire
B	Spade Lug No. 5
C	Ring Lug No. 10
D	Box/Spade Lug No. 5

**WIRE CONFIGURATION:**  
3 or 4

**U DIMENSION**  
Insertion length in 1/8 in. increments.  
Minimum 1-3/8 in., Maximum 15 in.

**RECEPTACLE**  
Standard length 1/2 in., with 1/2"-14 NPT process thread. Other dimensions available.

**S DIMENSION**  
Standard tube extension length 2 in. @ 90° and 1-3/4 in @180°, or specify your requirements.

**W DIMENSION**  
Wire length in 1 in. increments. Minimum 8 in.

**B DIMENSION**  
3-3/4 in. standard length, or specify your requirements.

**TERMINATION**  
Select termination from table at left.

**TUBE BEND**  
90° or 180°

**IDENTIFICATION**  
Model number, sales order number or your number.





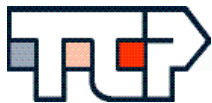





**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm



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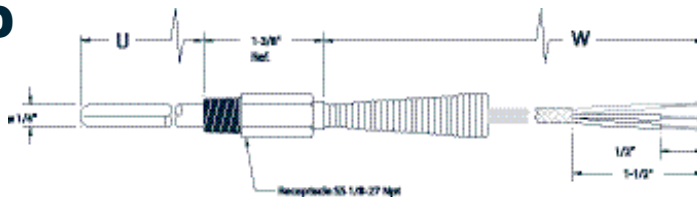
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## BEARING TURBINE RTD

### Part # 664-810-000

- Ideal for engine and compressor service.
- Spring-loaded for superior bearing contact.
- High-temperature Teflon® insulation with braided stainless steel overwrap.
- PT100 DIN 43760-1980 a 0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

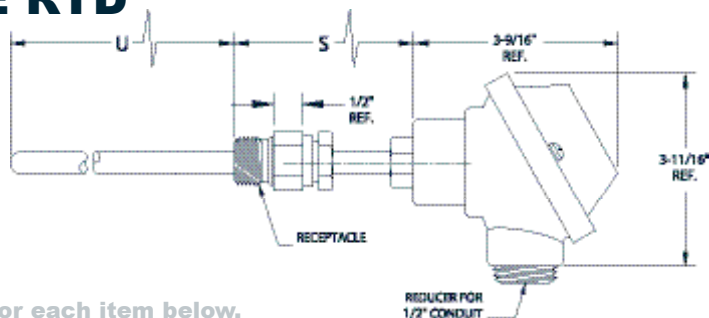
**Configuration Number: 664-810-000**

<b>WIRE CONFIGURATION:</b> 3 or 4	<input type="text"/>
<b>U DIMENSION</b> Insertion length. Specify your requirements.	<input type="text"/>
<b>RECEPTACLE</b> Standard 1/8"-27 NPT process thread.	<input type="text"/>
<b>W DIMENSION</b> Wire length in 6 in. increments. Minimum = 5 ft.	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	<input type="text"/>

## HEAVY-DUTY TURBINE RTD

### Part # 664-820-000

- For installations where a flexible conduit connection is undesirable
- 3/8 in. O.D. 304 stainless steel protection tube
- Terminal block is easily accessible for extension wire connection
- Reducers available
- PT100 DIN 43760-1980 a 0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

**Part Number: 664-820-000**

<b>WIRE CONFIGURATION:</b> 3 or 4	<input type="text"/>
<b>U DIMENSION</b> Insertion length in 1/8 in. increments. Min. = 2-3/8 in., Max. 20 in.	<input type="text"/>
<b>RECEPTACLE (3/8 In. tube)</b> Standard 1/2 in., with 1/2" - 14 NPT process thread. Other dimensions available.	<input type="text"/>
<b>S DIMENSION</b> Standard tube extension length is 2-7/16 in., or specify your requirements.	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	<input type="text"/>

Turbine RTDs

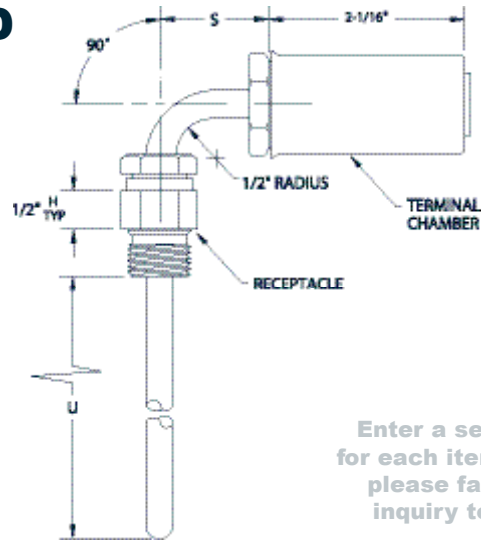
**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

# HEAVY-DUTY TURBINE RTD

## Part # 664-830-000

- For installations where a flexible conduit connection is undesirable.
- Compact unit with snap-on locking terminal head.
- 1/4 in. or 3/8 in. O.D. 304 stainless steel protection tube
- Terminal block is easily accessible for extension wire connection.
- PT100 DIN 43760-1980 α 0.003850



Enter a selection for each item below, please fax your inquiry to TCR.

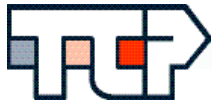
**Configuration Number: 664-830-000**

<b>WIRE CONFIGURATION:</b> 3 or 4	<input type="text"/>
<b>TUBE DIAMETER</b> 1/4 in. OR 3/8 in.	<input type="text"/>
<b>U DIMENSION</b> Insertion length in 1/8 in. increments. Minimum 1-3/8 in., Maximum 15 in.	<input type="text"/>
<b>RECEPTACLE (3/8 IN. TUBE)</b> Standard length 1/2 in., with 1/2"-14 NPT process thread. Other dimensions available.	<input type="text"/>
<b>RECEPTACLE (1/4 IN. TUBE)</b> Standard length 1/2 in., with 1/8"-27 NPT process thread. Other dimensions available.	<input type="text"/>
<b>S DIMENSION</b> Standard tube extension length 2 in. @ 90° and 1-3/4 in @180°, or specify your requirements.	<input type="text"/>
<b>TUBE BEND</b> 90° or 180°	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	<input type="text"/>

**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm



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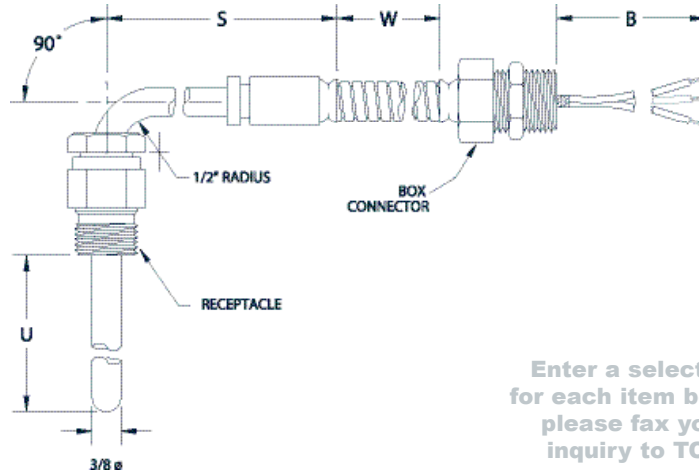
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# HEAVY-DUTY TURBINE RTD

## Part # 664-840-000

- 3/8 in. O.D. 304 stainless steel protection tube.
- High temperature glass braid insulation
- Braided stainless steel overwrap
- 1/2 in. O.D. flexible 304 stainless steel protective conduit
- Available in compression fitting for adjustable insertion lengths
- PT100 DIN 43760-1980 a 0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

**Configuration Number: 664-840-000**

ITEM	TERMINATION
A	No termination, 1/2 in. bare wire
B	Spade Lug No. 5
C	Ring Lug No. 10
D	Box/Spade Lug No. 5

<b>WIRE CONFIGURATION:</b> 3 or 4	<input type="text"/>
<b>U DIMENSION</b> Insertion length in 1/8 in. increments. Minimum 1-3/8 in., Maximum 15 in.	<input type="text"/>
<b>RECEPTACLE</b> Standard length 1/2 in., with 1/2"-14 NPT process thread. Other dimensions available.	<input type="text"/>
<b>S DIMENSION</b> Standard tube extension length 2 in. @ 90° and 1-3/4 in @ 180°, or specify your requirements.	<input type="text"/>
<b>W DIMENSION</b> Wire length in 1 in. increments. Minimum = 8 in.	<input type="text"/>
<b>B DIMENSION</b> 3-3/4 in. standard length, or specify your requirements.	<input type="text"/>
<b>Termination</b> Select termination from table at left.	<input type="text"/>
<b>TUBE BEND</b> 90° or 180°	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	<input type="text"/>

**Metric Orders Welcome**

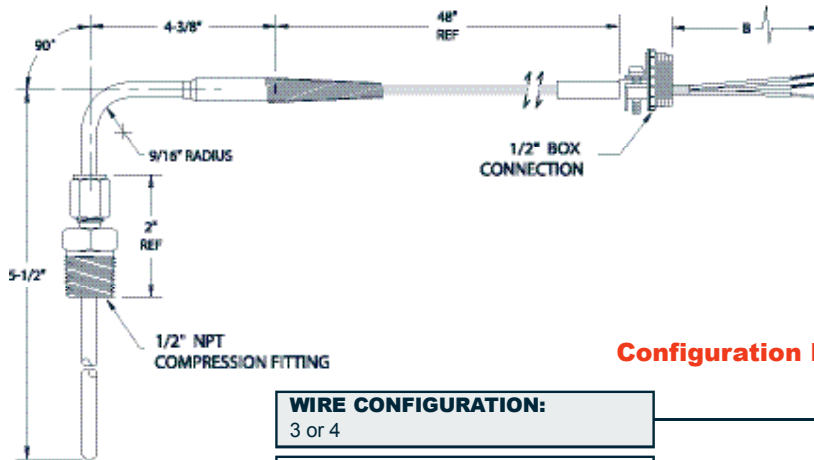
Place an **mm** in the appropriate selection box:

Turbine RTDs

# LIGHT-DUTY TURBINE RTD

## Part # 664-850-000

- 1/2"-14 NPT compression fitting.
- 1/2 in. box connector
- PT100 DIN 43760-1980  $\alpha$  0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

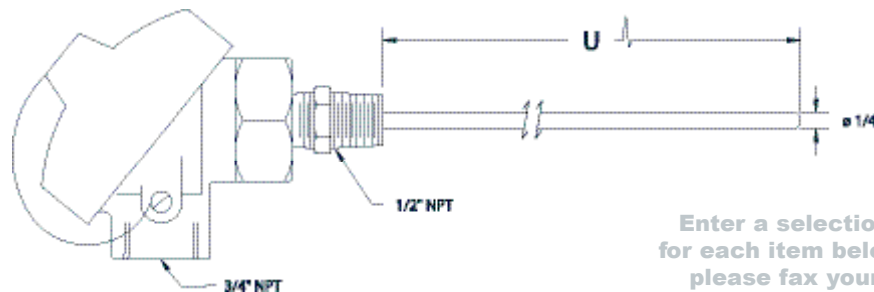
**Configuration Number: 664-850-000**

<b>WIRE CONFIGURATION:</b> 3 or 4	_____	<input type="text"/>
<b>B DIMENSION</b> In 1 in. increments Minimum = 4 in., Maximum = 12 in.	_____	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	_____	<input type="text"/>

# SPRING-LOADED TURBINE RTD

## Part # 664-860-000

- Aluminum screw-top head permits transmitter installation
- 1/4 in. O.D. 304 stainless steel protection tube
- PT100 DIN 43760-1980  $\alpha$  0.003850
- Spring loaded for use with thermowell or fixed for direct immersion



Enter a selection for each item below, please fax your inquiry to TCP.

**Part Number: 664-860-000**

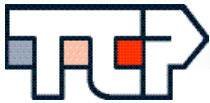
<b>WIRE CONFIGURATION:</b> 3 or 4	_____	<input type="text"/>
<b>U DIMENSION</b> Insertion length in 1/8 in. increments. Minimum 2-3/8 in., Maximum 20 in.	_____	<input type="text"/>
<b>RECEPTACLE</b> 1/2 in. NPT, fixed or spring loaded	_____	<input type="text"/>
<b>IDENTIFICATION</b> Model number, sales order number or your number.	_____	<input type="text"/>

**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm

Turbine RTDs



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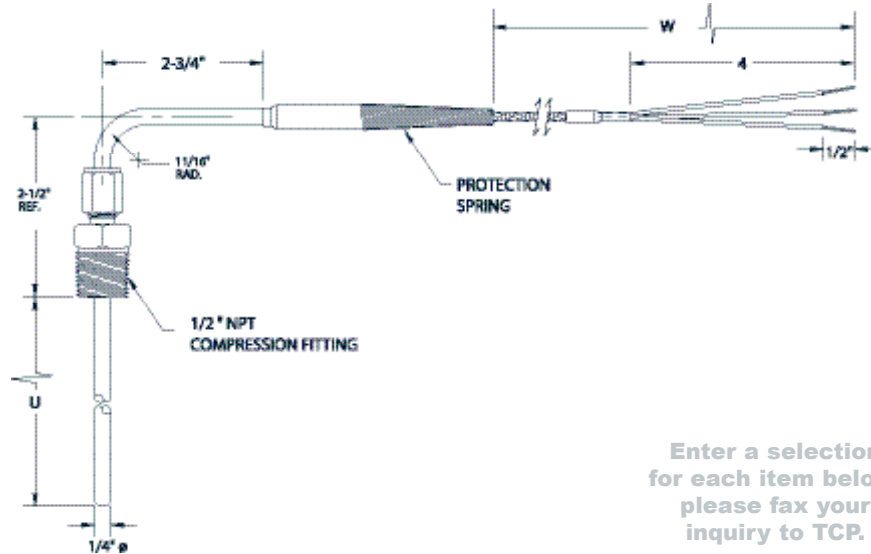
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# ADJUSTABLE IMMERSION TURBINE RTD

## Part # 664-870-000

- Teflon-coated with stainless steel overbraid
- 1/4 in. O.D. 304 stainless steel protection tube
- PT100 DIN 43760-1980 a 0.003850



Enter a selection for each item below, please fax your inquiry to TCP.

**Configuration Number: 664-870-000**

<b>WIRE CONFIGURATION:</b> 3 or 4	_____
<b>U DIMENSION</b> Insertion length in 1/8 in. increments. Minimum 1-3/8 in., Maximum 15 in.	_____
<b>RECEPTACLE</b> 1/2 in. NPT stainless steel compression fitting. Other dimensions available.	_____
<b>W DIMENSION</b> Wire length in 1 in. increments. Minimum - 8 in.	_____
<b>TUBE BEND</b> 90° or 180°	_____
<b>IDENTIFICATION</b> Model number, sales order number or your number.	_____

Turbine RTDs

**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm