

Resistance Temperature Detectors (RTDs)

Resistance Temperature Detectors (RTD's). These detectors are frequently used in the plastics industries and many others. Care must be taken to eliminate moisture and vibration effects can be troublesome as well. Thermo Sensors provides the utmost in current state of the art in materials, techniques and research.

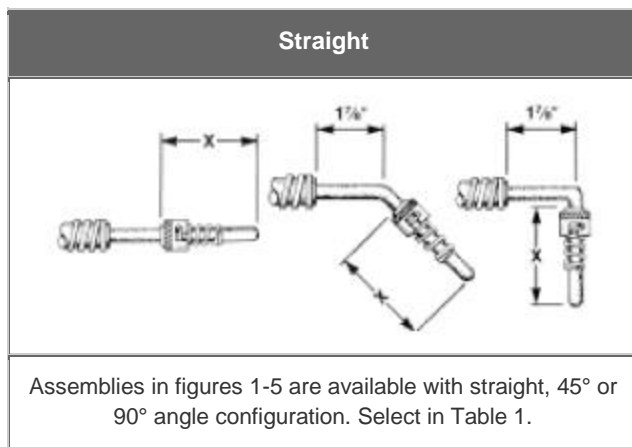
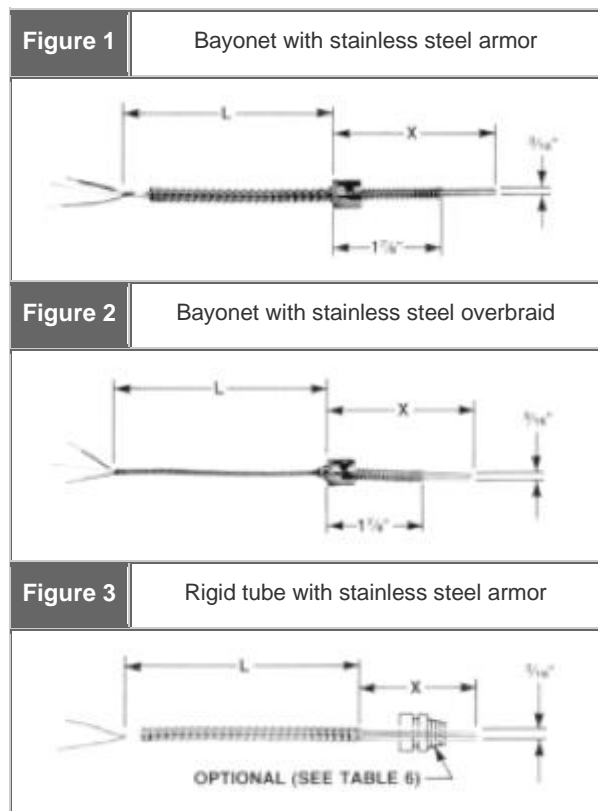
Thermo Sensors offers the Reliatemp RTD. This RTD features lifetime moisture free use as well as excellent vibration resistance.

Please refer to our order guide to assist in determining your needs. We can also provide technical design assistance and application suggestions. Give us a call.

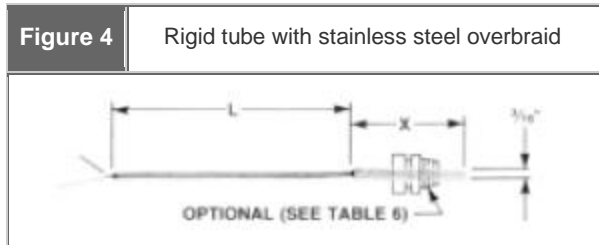


Bayonet Assemblies

Table 1 (style)



| Order Code | Configuration | | |
|------------|---------------|------|------|
| | Straight | 45° | 90° |
| Figure 1 | R111 | R145 | R190 |
| Figure 2 | R211 | R245 | R290 |
| Figure 3 | R311 | R345 | R390 |
| Figure 4 | R411 | R445 | R490 |



| | | | |
|----------|------|------|------|
| Figure 5 | R511 | R545 | R590 |
|----------|------|------|------|

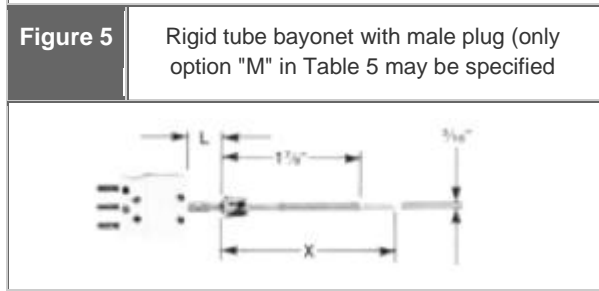


Table 2 (sensing element options)

| Sensor Type | Order Code | |
|--|--|---------|
| | 2-Wire* | 3-Wire* |
| 100ohm Platinum .00385 T.C. (DIN 43760) (Most commonly used) | A2 | A3 |
| Notes: | For dual element insert a "2" in front of order Code. Example: 2A3 | |

Bayonet and Rigid Assemblies

Table 3
Temperature Range Options

| Temperature Range | Order Code |
|--------------------------------|------------|
| -50 to +260°C -50 to +500°F | L |
| -50 to +400°C -50 to +750°F | S |

Table 4
Dimension Option

| "X" and "L" Lengths | Order Code |
|--|------------|
| Refer to Figures 1-7 and specify the lengths of "X" and "L" in inches. Insert in ordering sequence. See "How To Order" | |

Table 5
End Terminations




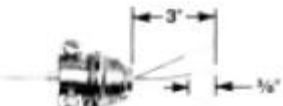

| | |
|---|---|
|  <p>Insulated Leads-Striped</p> | B |
|  <p>No. 8 Spade Lugs</p> | L |
|  <p>Male Plug</p> | M Required for Figure 5. Optional for others. |
|  <p>1/2" BX Connector</p> | BX |
|  <p>1/2" BX Connector w/ #8 Lugs</p> | BXL |

Table 6
Options

| Style | Order Code |
|--|------------|
| 1/8" npt brass compression fitting for Figures 3 and 4 | B |
| 1/8" npt stainless steel compression for Figures 3 and 4. | S |
| Mating female connector for end termination "M" in Table 5 | F |

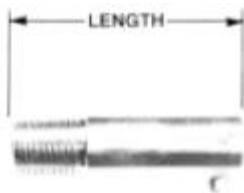
How to Order:

Make a selection from each table and specify "X" and "L" dimensions as shown below. Insert hyphens only where indicated.

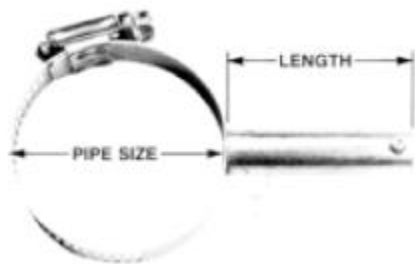
| Style | Sensing Element | Temp. Range | Dimensions | | Terminations | Options |
|---------|-----------------|-------------|-----------------------|-----|--------------|--------------------|
| R111 | A3 | L | (X) Specify in Inches | (L) | M | F |
| Table 1 | Table 2 | Table 3 | Table 4 | | Table 5 | Table 6 (optional) |

Bayonet Adapters

Table 13



| Thread | Length | Part Number |
|--------|--------|-------------|
| 1/8NPT | 7/8" | 3001-1 |
| 1/8NPT | 1-3/8" | 3001-2 |
| 1/8NPT | 2-1/2" | 3001-3 |
| 3/8-24 | 7/8" | 3001-4 |
| 3/8-24 | 1-3/8" | 3001-5 |
| 3/8-24 | 2-1/2" | 3001-6 |



| Part Numbers | | | | | | | | | |
|-----------------|------------------------|--------|--------|--------|--------|--------|-------------|--------|--------|
| Adapter Lengths | Pipe Clamp Sizes (IPS) | | | | | | | | |
| | 1/2" | 3/4" | 1-1/2" | 2" | 2-1/2" | 3" | 3-1/2" - 4" | 5" | 6" |
| 1.875" Standard | 3002-1 | 3002-2 | 3002-3 | 3002-4 | 3002-5 | 3002-6 | 3002-7 | 3002-8 | 3002-9 |
| 2-1/2" | 3003-1 | 3003-2 | 3003-3 | 3003-4 | 3003-5 | 3003-6 | 3003-7 | 3003-8 | 3003-9 |
| 3" | 3004-1 | 3004-2 | 3004-3 | 3004-4 | 3004-5 | 3004-6 | 3004-7 | 3004-8 | 3004-9 |
| 3-1/2" | 3005-1 | 3005-2 | 3005-3 | 3005-4 | 3005-5 | 3005-6 | 3005-7 | 3005-8 | 3005-9 |
| 4" | 3006-1 | 3006-2 | 3006-3 | 3006-4 | 3006-5 | 3006-6 | 3006-7 | 3006-8 | 3006-9 |
| 5-1/4" | 3007-1 | 3007-2 | 3007-3 | 3007-4 | 3007-5 | 3007-6 | 3007-7 | 3007-8 | 3007-9 |

For New Installations:

The following formula may be used to determine the "X" dimensions of bayonet RTD.

For Threaded Adapters:

$X = \text{Depth of hole} + \text{adapter length} + 1/2"$.

For Pipe Clamp Adapters:

$X = \text{Adapter length} + 3/4"$

(This formula assumes the sensor is in surface contact with the pipe.)