The straight base metal thermocouple assemblies illustrated on this page are those most commonly used in industrial process heating applications. All listed assemblies are provided with schedule 40 protection tubes, and are available with listed options. Heavier pipe schedule protection tubes and special construction designs are also available. Note: Welded bushings will be welded at maximum length possible when X and U dimensions are specified as the same length. Actual U dimension will be 1 to 2 inches shorter than specified depending on bushing size.

**ORDER CODES**

**Example Order Number:**

```
K8C - 7 - 50 - 24 - 6E20 - 34
```

1. **Thermocouple Type and Wire Gauge Size**
   - CODE
     - J8C
     - K11C
     - K14C
     - N8C
   - Thermocouples of 8 ga. wire require minimum of 1/2" NPT tube

2. **Protection Tube Material**
   - CODE | MATERIAL | (inches) | LENGTH |
   - 6   | CARBON STEEL | 1/4 | 25 | 50 | 75 | 100
   - 8   | 316 SS        | 1/2 | 25 | 50 | 75 | 100
   - 5   | 446 SS        | 3/4 | 50 | 75 | 100
   - 3   | ALLOY 600     |     | 50 | 75 |
   - 7   | ALLOY 601     |     | 50 | 75 |
   - 41  | HR-160®      |     | 50 | 75 |

3. **NPT Thread Size**
   - CODE | LENGTH |
   - 12  | 30 |
   - 18  | 36 |
   - 24  |     |
   - Specify other lengths in 1" increments up to 240°. Consult factory for lengths above 20".

4. **Tube "X" Length**
   - LENGTH (inches) | LENGTH (inches) | SPEC NO: | REV. | DATE: |
   - 6               |                 |           |       |       |

5. **Optional Welded Bushings**
   - CODE | DESCRIPTION |
   - STEEL | 316 SS | BUSHING SIZE (inches) |
   - 6C(U) | 8C(U)  | 1/2 NPT Bushing (25 tubes only) |
   - 6D(U) | 8D(U)  | 3/4 NPT Bushing (25 and 50 tubes only) |
   - 6E(U) | 8E(U)  | 1 NPT Bushing (25, 50 and 75 tubes only) |
   - 6F(U) | 8F(U)  | 1(1/4) NPT Bushing |
   - 6G(U) | 8G(U)  | 1(1/2) NPT Bushing |

   Substitute insertion length, in inches, measured from hot tip to bottom of bushing for (U) above. Insert NW in place of insertion length (U) for bushing supplied loose on tube.

6. **Optional Union and Nipple Head Connection**
   - CODE | DESCRIPTION |
   - STEEL | 316 SS | Union-nipple supplied as material specified |
   - 6PU(E) | 8PU(E) | (E) above. |

   [1] Insert extension length, in inches, for (E) above.

6. **Head Terminations**
   - CODE | DESCRIPTION |
   - 31 | Aluminum screw-cover head |
   - 34 | Cast-Iron screw-cover head |
   - 49 | Flip-top aluminum head |
   - 91(1) | 316L SS screw-cover head |
   - 93(1) | Aluminum explosion-proof/flame-proof head, NEC, IEC, Atex approved |
   - 94(1) | 316L stainless steel explosion-proof/flame-proof head, NEC, IEC, Atex approved |

   [1] Not available with 1" NPT protection tubes.

**ASSEMBLIES with WELDED BUSHINGS**

**6-1 Assembly Options**

- SB 1/2" NPT conduit reducer bushing
- GS Ground screw
- H Adjustable steel mounting flange
- L Insulated hot junction
- 6Y Steel temperature check fitting

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