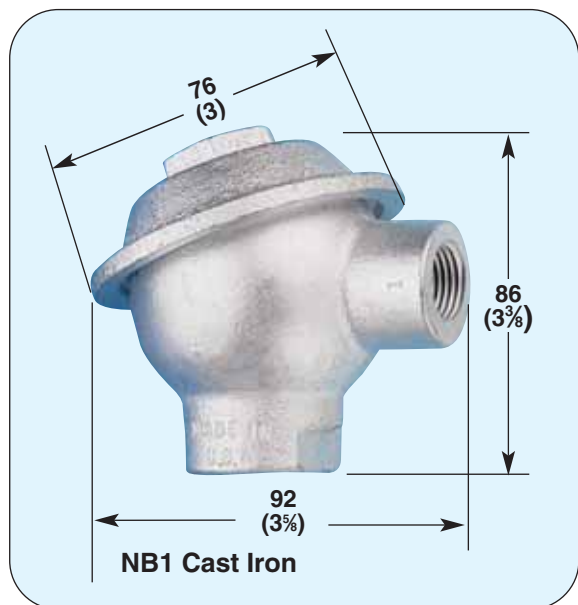
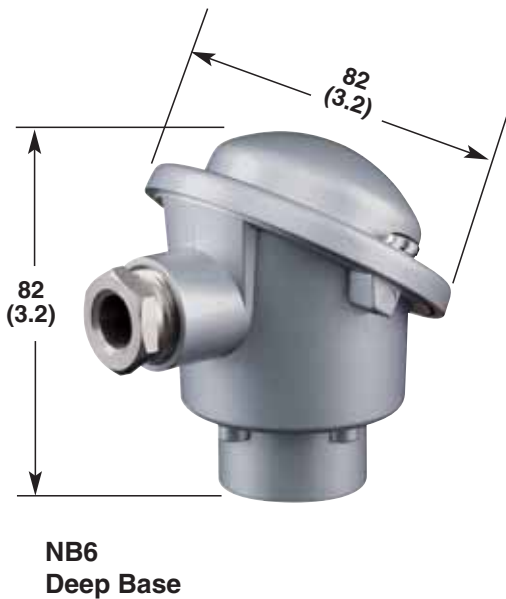
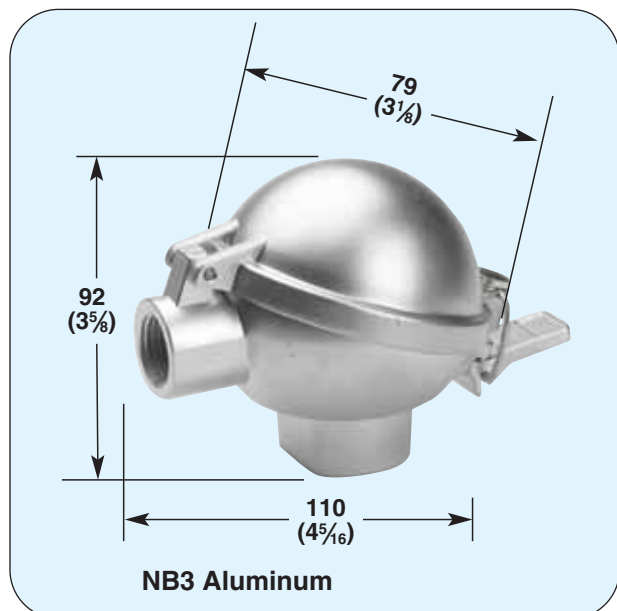
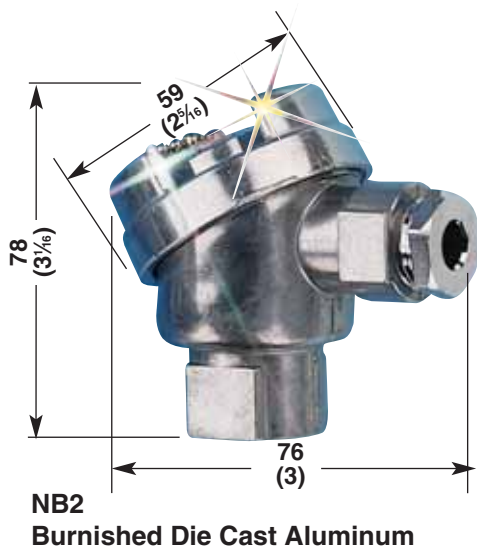


Thermocouple Heads



Dimensions: mm (in)



To Order (Specify Model No.)

| Material | Type | Model Number | Price Each |
|-----------------------------|------|--------------|------------|
| Cast Iron | NB1 | NB1-0 | \$23 |
| | | NB1-2 | 26 |
| | | NB1-4 | 28 |
| Burnished Die-Cast Aluminum | NB2 | NB2-0 | \$23 |
| | | NB2-2 | 26 |
| | | NB2-4 | 28 |
| Aluminum | NB3 | NB3-0 | \$25 |
| | | NB3-2 | 28 |
| | | NB3-4 | 30 |
| Aluminum | NB4 | NB4-0 | \$23 |
| | | NB4-4 | 28 |
| Cast Iron | NB5 | NB5-0 | \$23 |
| | | NB5-2 | 26 |
| | | NB5-4 | 28 |
| Aluminum | NB6 | NB6-0 | \$23 |
| | | NB6-2 | 26 |
| | | NB6-4 | 28 |

MOST POPULAR MODELS HIGHLIGHTED!

| Terminals | Wt (oz) | Threaded Openings | | Features |
|---|-----------------|----------------------------|--|---|
| | | Protection Tube Entry | Extension Wire Entry | |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 22 23 24 | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Rugged construction • Screw cover with inside thread • Moisture and dust resistant • Ideal for outdoor use • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 5 6 6½ | ½ NPT Standard | ½ NPT w/compression fitting for ¼ to ½" OD wire | <ul style="list-style-type: none"> • Small and lightweight • Good corrosion resistance • Gasketed, weather resistant • Burnished finish • Safety chain on cover • Medium size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 8 9¼ 9¾ | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Hinge top • Lightweight aluminum • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 2½ 3½ 3¾ | M10 x1 works with ½ NPT | M15 x 0.75 w/compression fitting | <ul style="list-style-type: none"> • Metric • Miniature size • Good corrosion resistance • Uses miniature barrier strip connector (optional) |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 56 57 58 | ½ NPT | ½ NPT w/compression fitting | <ul style="list-style-type: none"> • Rugged cast iron • High-temperature painted finish • Safety chain on cover • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 8¾ 9¾ 10¾ | ½ NPT | ½ NPT w/compression fitting | <ul style="list-style-type: none"> • Deep base • Lightweight aluminum • Standard size |

Ordering Examples: NB1-0, cast iron head with no terminal block, \$23.
NB6-2, deep base aluminum head with a 2-terminal terminal block (for 1 thermocouple element), \$26.



**Bakelite
CH-76**



**Bakelite
CH-78**



**Ceramic
CH-83**



**Ceramic
CH-84**



**Bakelite
CH-77**

All shown smaller than actual size.

Terminal Blocks for Connection Heads

(Order separately or included with heads with -2 or -4 suffixes)

Ceramic Block with Nickel Plated Brass Terminals for NB2 Head for Gage 14 Wire Maximum



To Order (Specify Model No.)

| Model No. | Price | Terminals | Wt g (oz) |
|-----------|-------|------------|-----------|
| CH-49 | \$4 | 2 = single | 43 (1½) |
| CH-50 | 6 | 4 = duplex | 57 (2) |

Ceramic Blocks with Brass Terminals for Type NSA, NSB, NSC, and NBS Connection Heads for Max 8-Gage Wire



To Order (Specify Model No.)

| Model No. | Price | Terminals | Wt g (oz) |
|-----------|-------|------------|-----------|
| CH-47 | \$6 | 2 = single | 85 (3) |
| CH-48 | 8 | 4 = duplex | 128 (4½) |

Ceramic Blocks with Brass Terminals for Type NBN, NB3, NBN, NXT, NB1, and NBB Connection Heads for Max 14-Gage Wire



To Order (Specify Model No.)

| Model No.* | Price | Terminals | Wt g (oz) |
|------------|-------|------------|-----------|
| CH-73 | \$3 | 2 = single | 35 (1¼) |
| CH-74 | 5 | 4 = duplex | 50 (1¾) |

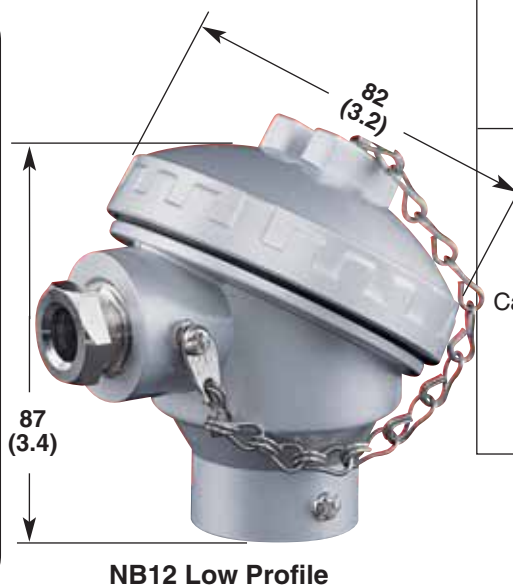
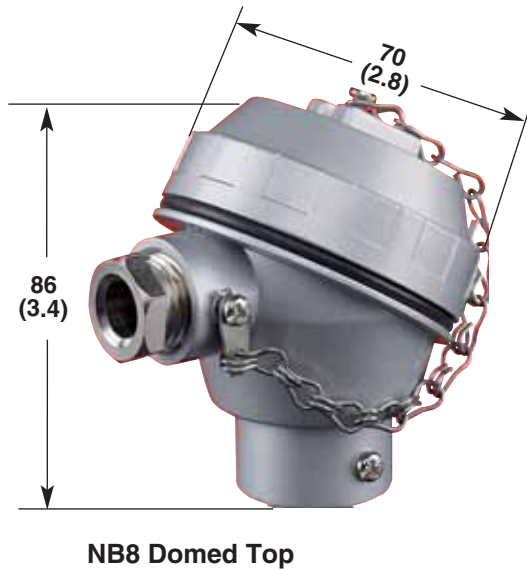
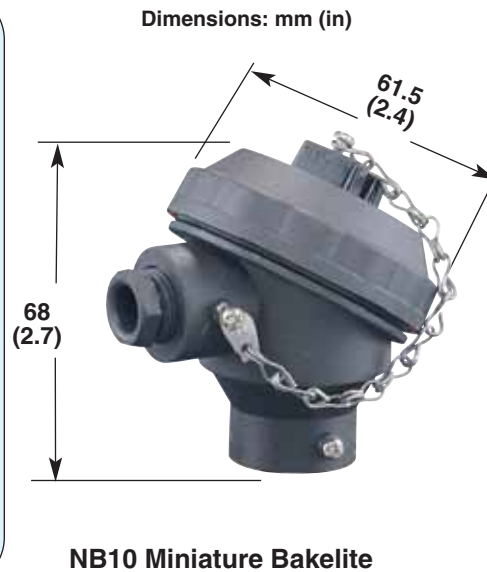
*For NB1 heads, add suffix "-NB1" to model number; no additional charge.

To Order (Specify Model No.)

| Model† No. | Price | Desc | Material | Term | Wt g (oz) |
|------------|-------|-------------------|----------|------|-----------|
| CH-83 | \$4 | For NB4 | Ceramic | 2 | 28 (1) |
| CH-84 | 4 | For NB4 | Ceramic | 4 | 28 (1) |
| CH-76 | 4 | For NBG, NB5, NB6 | Bakelite | 2 | 77 (2½) |
| CH-77 | 4 | NB7, NB9 and NB12 | Bakelite | 3 | 77 (2½) |
| CH-78 | 4 | | Bakelite | 4 | 77 (2½) |

†These are alternatives, not standard with -2 or -4 suffixes on thermocouple heads.

Thermocouple Heads



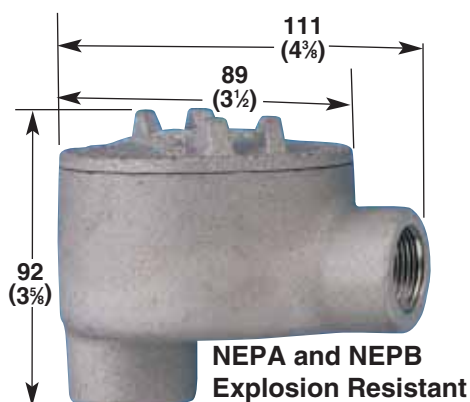
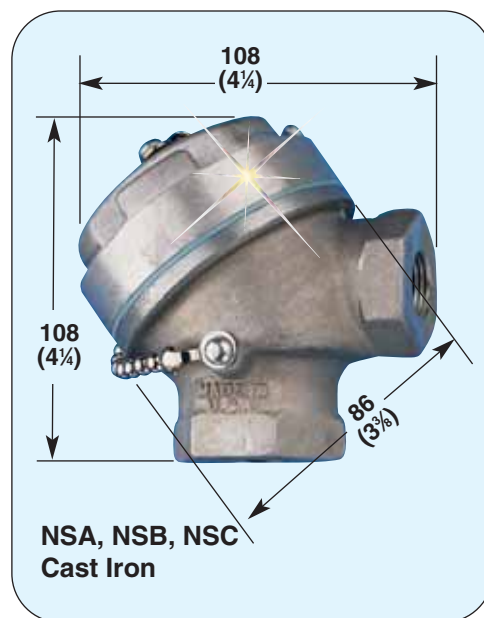
| To Order (Specify Model No.) | | | |
|------------------------------|------|--------------|------------|
| Material | Type | Model Number | Price Each |
| Aluminum | NB7 | NB7-0 | \$23 |
| | | NB7-2 | 26 |
| | | NB7-4 | 28 |
| Aluminum | NB8 | NB8-0 | \$23 |
| | | NB8-2 | 26 |
| | | NB8-4 | 28 |
| Glass Reinforced Nylon | NB9 | NB9-0 | \$23 |
| | | NB9-2 | 26 |
| | | NB9-4 | 28 |
| Bakelite | NB10 | NB10-0 | \$23 |
| | | NB10-2 | 26 |
| | | NB10-4 | 28 |
| Aluminum | NB11 | NB11-0 | \$23 |
| | | NB11-2 | 26 |
| | | NB11-4 | 28 |
| Aluminum | NB12 | NB12-0 | \$23 |
| | | NB12-2 | 26 |
| | | NB12-4 | 28 |
| Cast Aluminum Body and Cap | NEPA | NEPA-0 | \$85 |
| | | NEPA-2 | 88 |
| | | NEPA-4 | 91 |
| | NEPB | NEPB-0 | \$85 |
| | | NEPB-2 | 88 |
| | | NEPB-4 | 91 |
| Cast Iron | NSA | NSA-0 | \$22 |
| | | NSA-2 | 25 |
| | | NSA-4 | 27 |
| | NSB | NSB-0 | \$22 |
| | | NSB-2 | 25 |
| | | NSB-4 | 27 |
| | NSC | NSC-0 | \$22 |
| | | NSC-2 | 25 |
| | | NSC-4 | 27 |

MOST POPULAR MODELS HIGHLIGHTED!

| Terminals | Wt (oz) | Threaded Openings | | Features |
|---|--|-----------------------|--|--|
| | | Protection Tube Entry | Extension Wire Entry | |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 8 $\frac{3}{4}$ 9 $\frac{1}{4}$ 10 $\frac{3}{4}$ | $\frac{1}{2}$ NPT | $\frac{1}{2}$ NPT | <ul style="list-style-type: none"> Lightweight aluminum construction Flip top Moisture and dust resistant Ideal for outdoor use Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 8 9 10 | $\frac{1}{2}$ NPT | $\frac{1}{2}$ NPT w/compression fitting | <ul style="list-style-type: none"> Small and lightweight Domed top Gasketed, weather resistant Secure screw thread Safety chain on cover Medium size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 5 6 7 | $\frac{1}{2}$ NPT | $\frac{1}{2}$ NPT w/compression fitting | <ul style="list-style-type: none"> Very lightweight construction Safety chain on cover Good corrosion resistance Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 2 $\frac{7}{8}$ 3 $\frac{1}{8}$ 4 $\frac{1}{4}$ | $\frac{1}{2}$ NPT | $\frac{3}{8}$ NPT | <ul style="list-style-type: none"> Ultra lightweight construction Safety chain on cover High temperature plastic Miniature size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 4 $\frac{7}{8}$ 5 $\frac{1}{2}$ 6 $\frac{1}{2}$ | $\frac{1}{2}$ NPT | $\frac{3}{8}$ NPT w/compression fitting | <ul style="list-style-type: none"> Miniature size IP 67 Sealed Safety chain on cover Lightweight construction Miniature size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 9 $\frac{3}{4}$ 10 $\frac{1}{2}$ 11 $\frac{1}{4}$ | $\frac{1}{2}$ NPT | $\frac{1}{2}$ NPT | <ul style="list-style-type: none"> Low profile Safety chain on cover Lightweight construction Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 16 $\frac{1}{2}$ 17 $\frac{1}{4}$ 18 $\frac{1}{4}$ | $\frac{3}{4}$ NPT | $\frac{3}{4}$ NPT | <ul style="list-style-type: none"> Explosion resistant head* Rated for: Class III Class I, Group C, D Class II, Groups E, F, G |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 21 $\frac{1}{2}$ 22 $\frac{1}{4}$ 23 $\frac{1}{4}$ | $\frac{1}{2}$ NPT | $\frac{1}{2}$ NPT | <ul style="list-style-type: none"> Screw cover Moisture and dust resistant Ideal for outdoor use Utilizes barrier strip connector (optional) |
| 0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire | 42 46 48 | $\frac{1}{2}$ NPT | $\frac{3}{4}$ NPT | <ul style="list-style-type: none"> Rugged construction Screw cover with inside thread Moisture and dust resistant Ideal for outdoor use |
| 0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire | 40 44 46 | $\frac{3}{4}$ NPT | $\frac{3}{4}$ NPT | <ul style="list-style-type: none"> Standard OMEGA heavy-duty head Cover equipped with safety chain (readily removed without tools) Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire | 36 40 42 | 1 NPT | $\frac{3}{4}$ NPT | |

Ordering Examples: 1.) NB10-0 is a bakelite head with no terminal block, \$23.
2.) NB7-4 is a flip-top aluminum head with a 4-terminal terminal block (for 2 thermocouple elements), \$28.

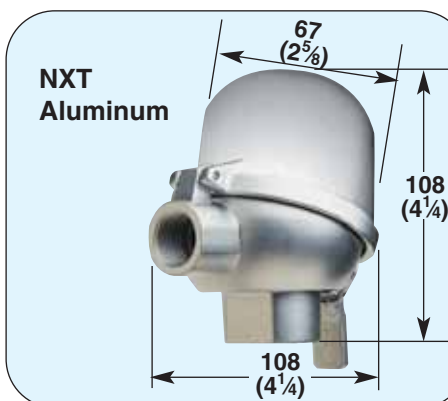
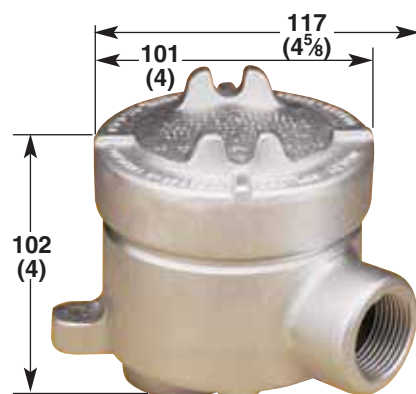
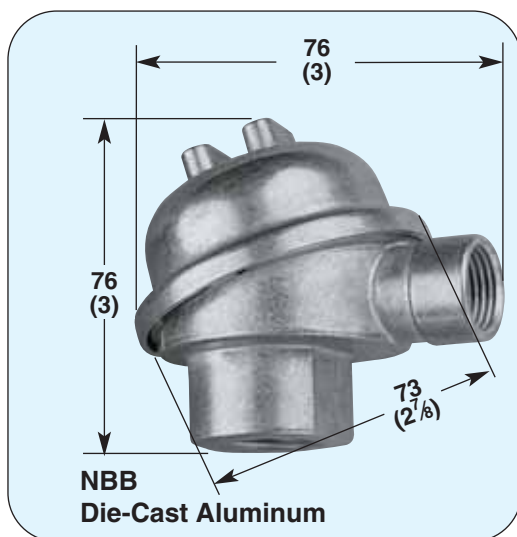
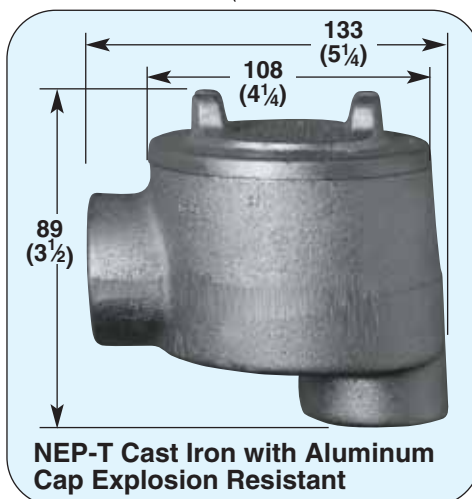
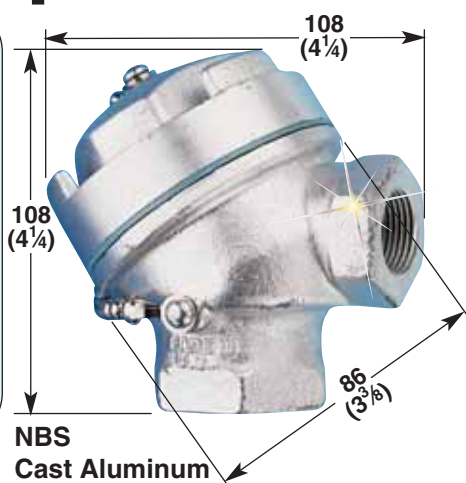
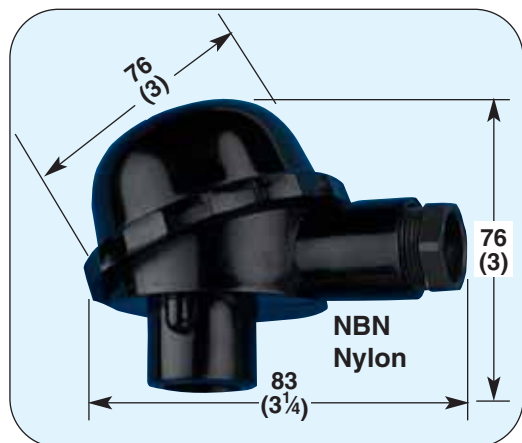
***Note:** The use of explosion resistant heads does not imply that a complete assembly is either explosion proof or intrinsically safe. It is the user's responsibility to determine suitability of materials for an installation.



| Discount Schedule | | |
|---------------------|-----|------------------------------|
| 1-10 Units | Net | |
| 11-24 Units | 5% | 101 and Up, Consult Sales |
| 25-100 Units . . . | 10% | |

**NEMA 4X (IP66)
Rated Heads Available.
Please consult our
Technical Quotations
Department**

Thermocouple Heads



To Order (Specify Model No.)

| Material | Type | Model Number | Price Each |
|-----------------------------|--------|--------------|------------|
| Nylon | NBN | NBN-0 | \$19 |
| | | NBN-2 | 22 |
| | | NBN-4 | 24 |
| Bakelite Glass Fiber | NBG | NBG-0 | \$19 |
| | | NBG-2 | 22 |
| | | NBG-4 | 24 |
| Die-Cast Aluminum | NBB | NBB-0 | \$23 |
| | | NBB-2 | 26 |
| | | NBB-4 | 29 |
| NBS Cast Aluminum | NBS | NBS-0 | \$25 |
| | | NBS-2 | 29 |
| | | NBS-4 | 31 |
| Cast Iron with Aluminum Cap | NEP-T | NEP-T0 | \$75 |
| | | NEP-T2 | 77 |
| | | NEP-T4 | 79 |
| | | | |
| Aluminum | NXT | NXT-0 | \$27 |
| | | NXT-2 | 30 |
| | | NXT-4 | 32 |
| Feraloy® Iron Alloy | HEP-TX | HEP-TX-0 | \$80 |
| | | HEP-TX-2 | 83 |
| | | HEP-TX-4 | 85 |
| | | HEP-TX70 | 85 |
| | | | |

Note: Barrier strips are utilized when more than 4 connections are required. e.g.: dual element 3-wire RTD.

Transmitter may be mounted in most heads. Transmitter may not be mounted in NB4 and only the smallest transmitters can fit the NB2 head by special order.

Check transmitter dimensions identified by individual product specifications as well as the internal dimensions for the head given in Section Z.

Ordering Example: NEP-T4, cast iron thermocouple head with aluminum cap, \$79.

Dimensions: mm (in)

Discount Schedule

| | |
|----------------------------|---------------------------|
| 1-10 Units Net | |
| 11-24 Units 5% | 101 and Up, Consult Sales |
| 25-100 Units 10% | |

MOST POPULAR MODELS HIGHLIGHTED!

| Terminals | Wt (oz) | Threaded Openings | | Features |
|---|----------------------|-----------------------|---|---|
| | | Protection Tube Entry | Extension Wire Entry | |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 3 4 5 | ½ NPT | Supplied with nylon bushing for plastic covered extension wire to 0.24" to 0.40" OD | <ul style="list-style-type: none"> • Easy access to terminal block • Suitable for use in ambient temperatures to 121°C (250°F) • Moisture and dust-resistant • Ideal for chemical plant use • Excellent corrosion resistance • Very light weight • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 6 7 8 | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Noncombustible • Heat proof • Acid resistant • Alkali resistant • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 6 7 8 | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Good corrosion resistance • Lightweight • Bayonet cover readily removed without tools • Easy access to terminal block • Moisture and dust-resistant • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire | 15 18 20 | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Good corrosion resistance • Lightweight • Cover, equipped with safety chain, easily removed • Moisture and dust-resistant • Standard size |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 75 76 76 | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Explosion resistant head* • Rated for Class I, Group C, D Class II, Groups E, F, G Class III • Screw cover with inside thread • Moisture and dust resistant • Ideal for outdoor use • Utilizes barrier strip connector (optional) |
| 0 = no terminal block 2 = single element 4 = duplex element max 14-gage wire | 11 12 ¼ 12 ¾ | ½ NPT | ½ NPT | <ul style="list-style-type: none"> • Tall cover with hinge top • Ideal for big transmitters • Utilizes barrier strip connector (optional) • Medium size |
| 0 = no terminal block 2 = single element 4 = duplex element 70 = for mounting TX70 Transmitter max 14-gage wire | 62 64 64 66 | 1 NPT ¾ NPT | 1 NPT ¾ NPT | <ul style="list-style-type: none"> • Explosion resistant head for 2-wire transmitter* • Rated for: Class I, Div 1&2, Groups C, D Class II, Div 1 Groups E, F, G, Class III • Moisture/dust-resistant • Utilizes barrier strip connector (optional) |

**Note: The use of explosion resistant heads does not imply that a complete assembly is either explosion proof or intrinsically safe. It is the user's responsibility to determine suitability of materials for an installation.*

To Order (Specify Model Number)

300 mm (12") Long with Insulation, Plus 13 mm (½") Stripped Ends Standard

| AWG Wire Size | Type K | Price 12" Length | Price Add'l 6" or Fraction | Type E | Price 12" Length | Price Add'l 6" or Fraction | Type J | Price 12" Length | Price Add'l 6" or Fraction |
|---------------|------------|------------------|----------------------------|------------|------------------|----------------------------|------------|------------------|----------------------------|
| 14 | XC-14-K-12 | \$17 | \$3 | XC-14-E-12 | \$17 | \$3 | XC-14-J-12 | \$17 | \$3 |
| 20 | XC-20-K-12 | 16 | 2 | XC-20-E-12 | 16 | 2 | XC-20-J-12 | 16 | 2 |
| 24 | XC-24-K-12 | 16 | 2 | XC-24-E-12 | 16 | 2 | XC-24-J-12 | 16 | 2 |

* 6" = 150 mm

Ordering Example: XC-20-K-12, \$16.

B-12

Bi-Metal Thermometers for Head & Well Assemblies
See Page E-14 for Additional Models



Model J (Shown)

\$114

2½", 4" and 6" Lengths

Shown smaller than actual size.

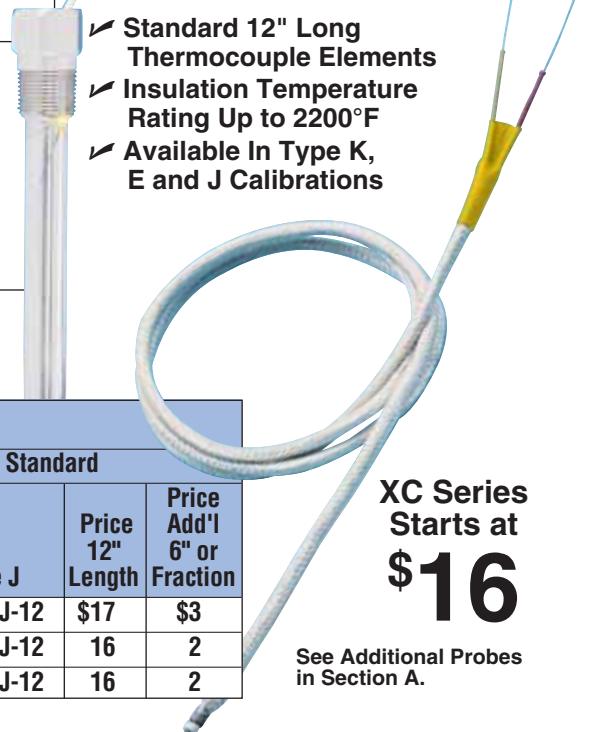
- ✓ Head Can Be Tilt-Adjusted Through a Full 90° Angle
- ✓ All Stainless Steel Welded Construction
- ✓ External Recalibration
- ✓ Rust and Corrosion Proof, Leakproof, Hermetically Sealed
- ✓ Sensitive Bi-Metal Element Silicone

- ✓ Dampened for Minimum Pointer Vibration and Maximum Heat Transfer
- ✓ Accuracy – 1% of Range
- ✓ Use of Thermowell Is Recommended for Pressure Applications
- ✓ Overrange Protection – 50% Up to 500°F

Thermowells Accept: Models A, B, G, H, L, R and S

Ceramic Fiber Insulated Thermocouple Elements for Head & Well Assemblies

- ✓ Standard 12" Long Thermocouple Elements
- ✓ Insulation Temperature Rating Up to 2200°F
- ✓ Available In Type K, E and J Calibrations



XC Series Starts at

\$16

See Additional Probes in Section A.