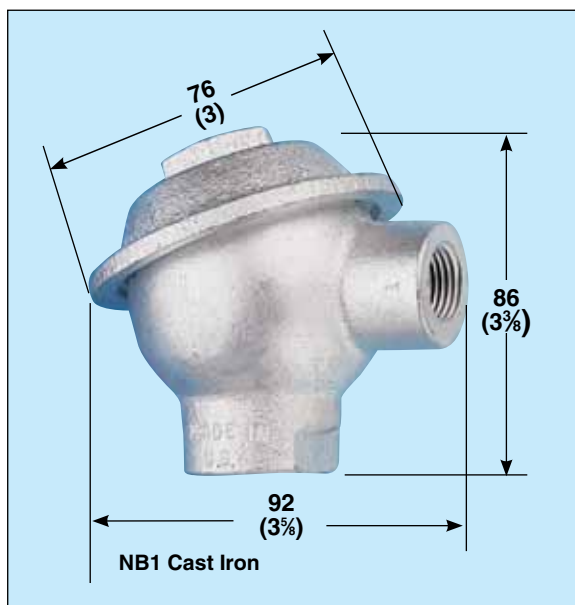


Thermocouple Heads

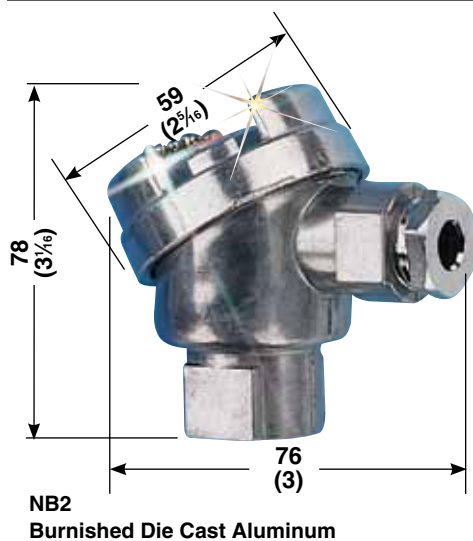


Dimensions: mm (inch)



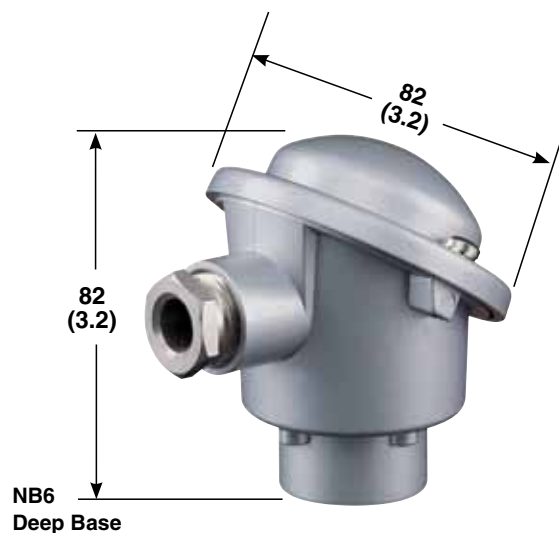
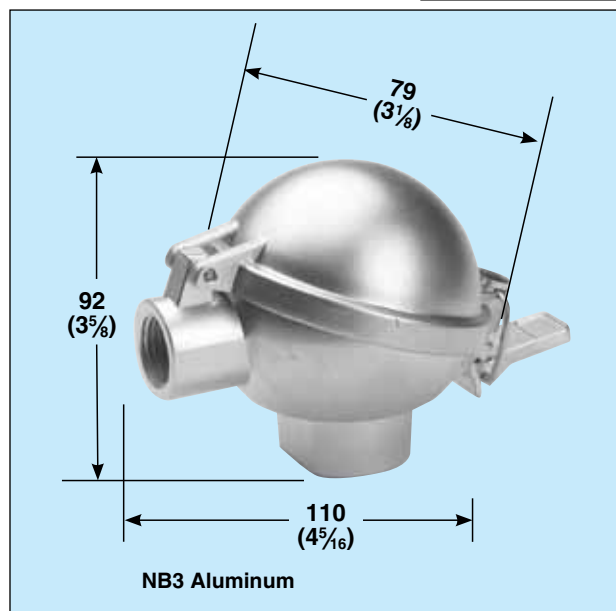
To Order

Material	Type	Model Number
Cast Iron	NB1	NB1-0 NB1-2 NB1-4
Burnished Die-Cast Aluminum	NB2	NB2-0 NB2-2 NB2-4
Aluminum	NB3	NB3-0 NB3-2 NB3-4
Aluminum	NB4	NB4
Cast Iron	NB5	NB5-0 NB5-2 NB5-4
Aluminum	NB6	NB6-0 NB6-2 NB6-4



Ordering Examples: NB1-0, cast iron head with no terminal block.

NB6-2, deep base aluminum head with a 2-terminal terminal block (for 1 thermocouple element).



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 with 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	2½ 3½ 8 9¼ 9¾	½ NPT	½ NPT	<ul style="list-style-type: none"> • Hinge top • Lightweight aluminum • Standard size
4 = duplex element max 14-gage wire	3¾	M10 x1 works with ¾ NPT	M16 x 1.5 with 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 with 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 with compression fitting	<ul style="list-style-type: none"> • Deep base • Lightweight aluminum • Standard size



Bakelite
CH-76.



Bakelite
CH-78.



Ceramic
CH-83.



Ceramic
CH-84.



Bakelite
CH-77.

All models 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

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

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



Model No.	Terminals	Wt g (oz)
CH-47	2 = single	85 (3)
CH-48	4 = duplex	128 (4½)

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



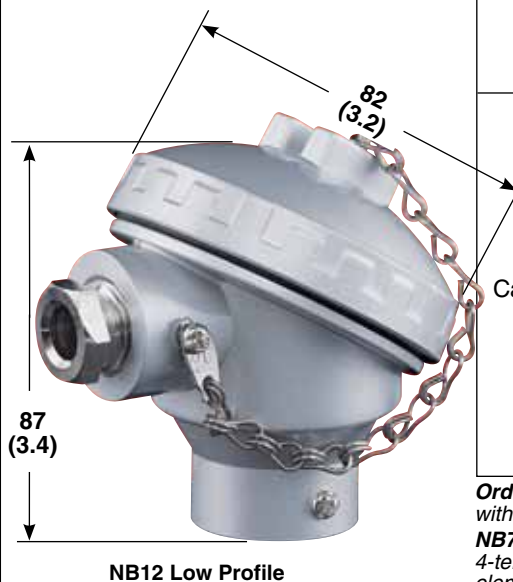
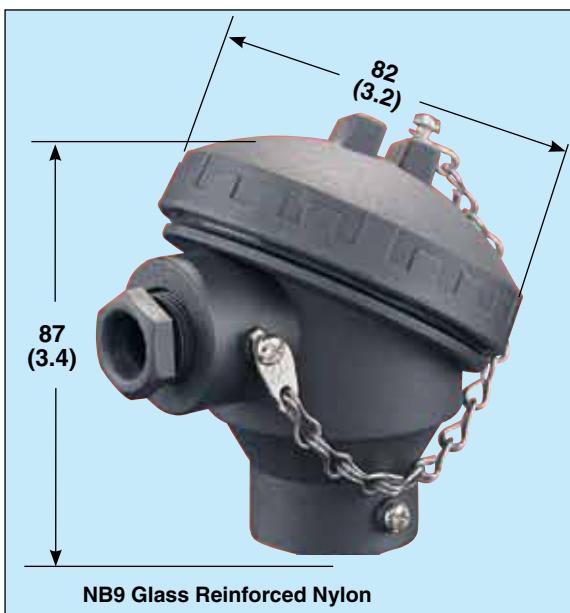
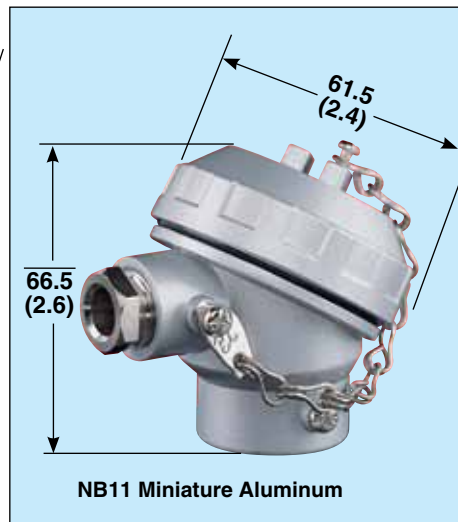
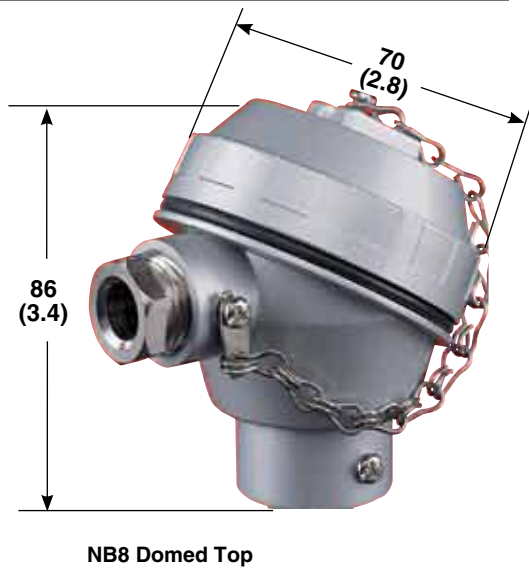
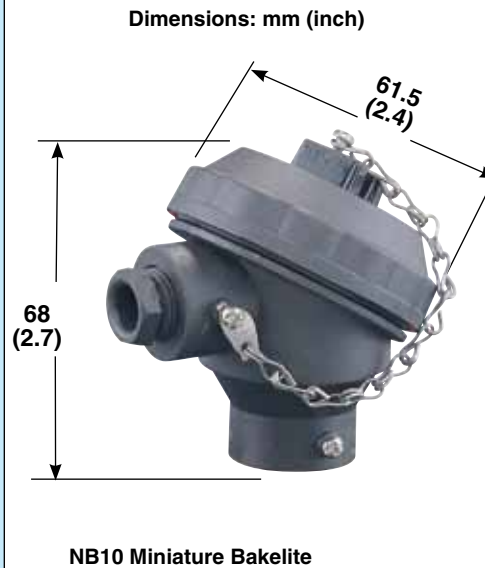
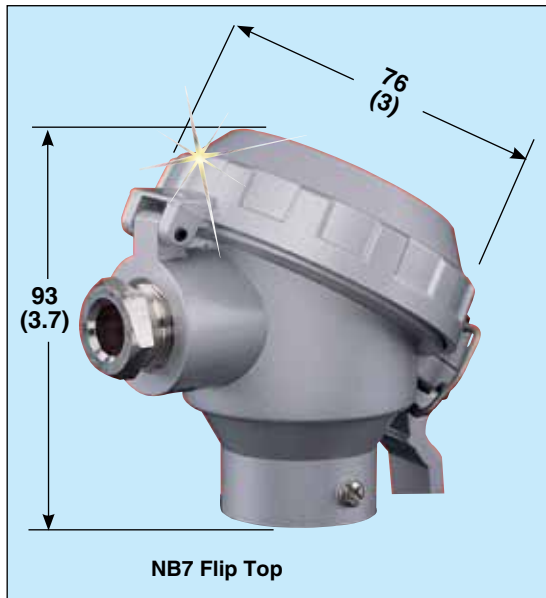
Model No.*	Terminals	Wt g (oz)
CH-73	2 = single	35 (1¼)
CH-74	4 = duplex	50 (1¾)

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

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

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

Thermocouple Heads



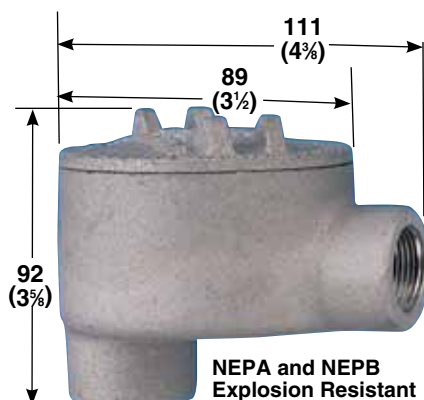
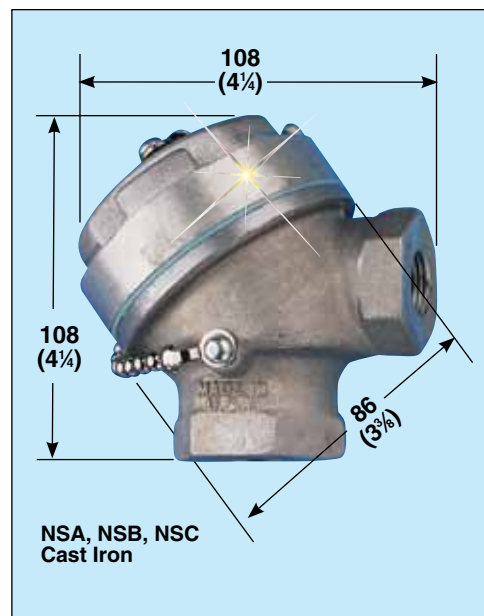
To Order		
Material	Type	Model Number
Aluminum	NB7	NB7-0 NB7-2 NB7-4
Aluminum	NB8	NB8-0 NB8-2 NB8-4
Glass Reinforced Nylon	NB9	NB9-0 NB9-2 NB9-4
Bakelite	NB10	NB10-0 NB10-2 NB10-4
Aluminum	NB11	NB11-0 NB11-2 NB11-4
Aluminum	NB12	NB12-0 NB12-2 NB12-4
Cast Aluminum Body and Cap	NEPA	NEPA-0 NEPA-2 NEPA-4
	NEPB	NEPB-0 NEPB-2 NEPB-4
	NSA	NSA-0 NSA-2 NSA-4
Cast Iron	NSB	NSB-0 NSB-2 NSB-4
	NSC	NSC-0 NSC-2 NSC-4

Ordering Examples: NB10-0, bakelite head with no terminal block.

NB7-4, flip-top aluminum head with a 4-terminal terminal block (for 2 thermocouple elements).

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 ³ / ₄ 9 ³ / ₄ 10 ³ / ₄	½ NPT	½ 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	½ NPT	½ NPT with 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	½ NPT	½ NPT with 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 ⁷ / ₈ 3 ⁷ / ₈ 4 ⁷ / ₈	½ NPT	¾ 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 ⁷ / ₈ 5 ⁷ / ₈ 6 ⁷ / ₈	½ NPT	¾ NPT with 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 ³ / ₄ 10 ³ / ₄ 11 ³ / ₄	½ NPT	½ 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 ¹ / ₂ 17 ¹ / ₂ 18 ¹ / ₂	¾ NPT	¾ NPT	<ul style="list-style-type: none"> Explosion resistant head* 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 14-gage wire	21 ¹ / ₂ 22 ³ / ₄ 23 ³ / ₄	½ NPT	½ NPT	
0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire	42 46 48	½ NPT	¾ NPT	
0 = no terminal block 2 = single element 4 = duplex element max 8-gage wire	40 44 46	¾ NPT	¾ NPT	<ul style="list-style-type: none"> Rugged construction Screw cover with inside thread Moisture and dust resistant Ideal for outdoor use 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	¾ NPT	

***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.

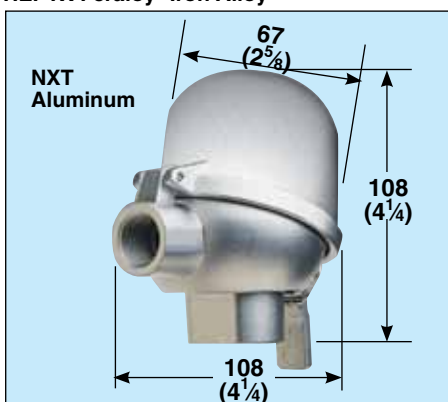
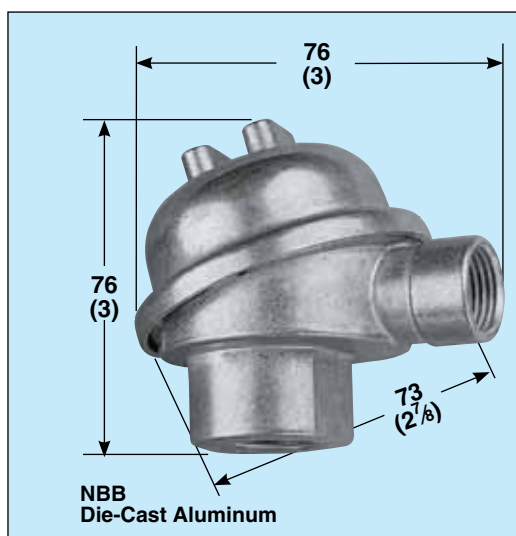
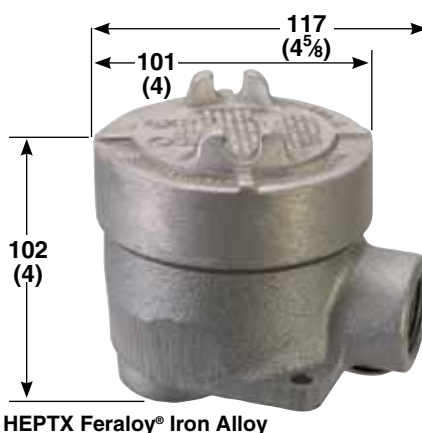
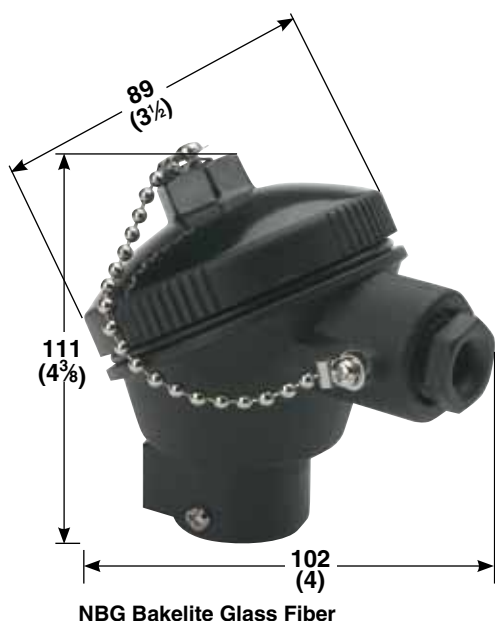
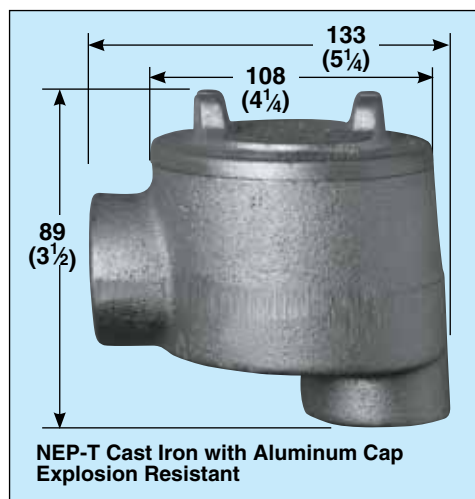
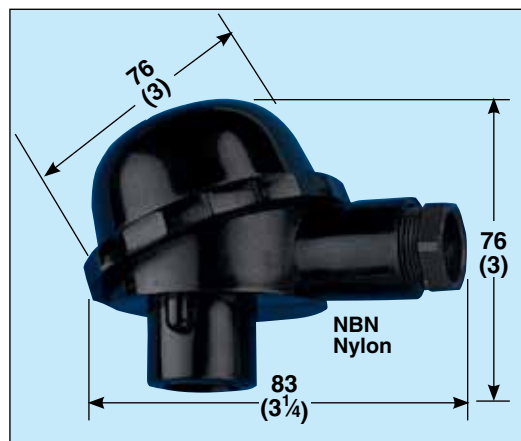


Discount Schedule	
1-10 UnitsNet	101 and Up, Consult Sales
11-24 Units5%	
25-100 Units . . .10%	

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

**Sanitary Polypropylene
and Stainless Steel
Heads Available. Visit
omega.com/sanitary**

Thermocouple Heads



To Order		
Material	Type	Model Number
Nylon	NBN	NBN-0 NBN-2 NBN-4
Bakelite Glass Fiber	NBG	NBG-0 NBG-2 NBG-4
Die-Cast Aluminum	NBB	NBB-0 NBB-2 NBB-4
Cast Iron with Aluminum Cap	NEP-T	NEP-T0 NEP-T2 NEP-T4
Aluminum	NXT	NXT-0 NXT-2 NXT-4
Feraloy® Iron Alloy	HEP-TX	HEP-TX-0 HEP-TX-2 HEP-TX-4 HEP-TX70

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.

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

Dimensions: mm (inch)

Discount Schedule	
1-10 UnitsNet	
11-24 Units5%	101 and Up, Consult Sales
25-100 Units . . .10%	

Bi-Metal Thermometers for Head and Well Assemblies

Additional Models Available.

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	1/2 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	1/2 NPT	1/2 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	1/2 NPT	1/2 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 14-gage wire	75 76 76	1/2 NPT	1/2 NPT	<ul style="list-style-type: none"> • Explosion resistant head* • 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 1/4 12 3/4	1/2 NPT	1/2 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 3/4 NPT	1 NPT 3/4 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

300 mm (12") Long with Insulation, Plus 13 mm (1/2") Stripped Ends Standard

AWG Wire Size	Type K	Type E	Type J
14	XC-14-K-12	XC-14-E-12	XC-14-J-12
20	XC-20-K-12	XC-20-E-12	XC-20-J-12
24	XC-24-K-12	XC-24-E-12	XC-24-J-12

* 6" = 150 mm ** Silica models also available, see omega.com



Model J (Shown)

2 1/2, 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



Additional probes available.

XC Series

Ordering Example: XC-20-K-12, 20 AWG Type K thermocouple, 300 mm (12') long with high temperature Nextel™ braided ceramic fiber insulation.