

# CONNECTION HEAD WITH BEADED THERMOCOUPLE AND MOUNTING HARDWARE

## How to build a part number:

To order an Applied Sensor Technologies temperature sensor, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

SENSOR TYPE	ASSEMBLY STYLE	CONNECTION	CONNECTION LENGTH	WIRE GAUGE	BEAD SHAPE	CALIBRATION	HOT JUNCTION	INSULATOR MATERIAL	BEAD LENGTH	OPTIONS

#### **SENSOR TYPE**

**BTC** - Beaded thermocouple

#### **ASSEMBLY STYLE**

## 80 - Sheath with cast aluminum head and beaded base-metal thermocouple; head

conforms to NEMA 4 requirements; 3/4" NPT conduit connection; ceramic terminal block; 1/2" NPT carbon steel process connection; gasketed screw cover with stainlesss steel chain; maximum head temperature 100°C

### **CONNECTION**

H - Head only, no mounting hardware; 1/2" NPT (female) instrument connection

N - 1/2" NPT carbon steel nipple

**NU** – 1/2" NPT carbon steel nipple and union

**NUN** – 1/2" NPT carbon steel nipple, union and nipple

Add suffix "15" for 304 stainless steel Add suffix "25" for 316 stainless steel See chart below for restrictions

## **CONNECTION LENGTH**

### (e.g., 006 = 6 inch)

(See chart below for standard available lengths)

### **WIRE GAUGE**

14 - 0.064" diameter

08 - 0.128" diameter (K & KK calibrations only)

#### **BEAD SHAPE**

**R** – Round

CALIBRATION- Standard limitsJ - Single JJJ - Dual JK - Single KKK - Dual K

### **HOT JUNCTION**

**U** - Underground junction

**E** – Exposed junction

TE - Twisted exposed

## INSULATOR MATERIAL

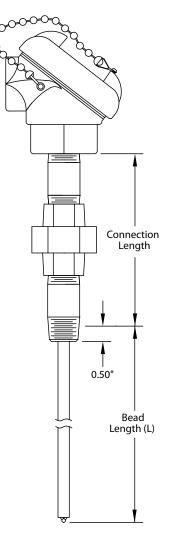
**M** – Mullite

**BEAD LENGTH** (96" maximum)

**L#** - (e.g., L6 = 6 inch sheath, L12.5 = 12.5 inch length)

**OPTIONS** – see back page

STANDARD AVAILABLE CONNECTION LENGTHS					
N	NU	NUN			
N/A	2.00	2.50			
0.50	2.50	3.00*			
1.00	3.00	4.00*			
1.50	3.50	5.00			
2.00	4.00	6.00*			
3.00	5.00	8.00			
4.00	6.00	10.00			
5.00	7.00	12.00			
6.00	8.00	14.00			
*NUN 2S OPTION AVAILABLE IN THESE LENGTHS ONLY. DIMENSIONS ARE GIVEN IN INCHES					



# **AVAILABLE OPTIONS and MODIFICATIONS**

ASSEMBLY OPTIONS			
Option Code	Description		
TAG1	Stainless steel tag and wire		
CAL1	NIST traceable calibration [specify point(s)]		
CRT1	Certificate of conformance		
WC20	Wiring cable gland for 0.187 - 0.312 diameter cables, for terminal heads with 1/2" NPT conduit connections		
WC21	Wiring cable gland for 0.125 - 0.187 diameter cables, for terminal heads with 1/2" NPT conduit connections		

NEMA 4 OR 4X TERMINAL HEAD OPTIONS						
Head without ground screw	Head with internal ground screw	Process Connection	Conduit Connection			
Cast aluminum, so	Cast aluminum, screw cover with chain, NEMA 4					
HD10	HD10 HD11		1/2"			
Std. HD13		1/2"	3/4"			
Epoxy-coated alur	Epoxy-coated aluminum, screw cover with chain, NEMA 4X					
HD50	1D50 HD51		1/2"			
HD52 HD53		1/2"	3/4"			
Cast iron, screw cover with chain, NEMA 4						
HD20	HD21	1/2"	1/2"			
HD22	HD22 HD23		3/4"			
316 stainless stee	stainless steel, screw cover with chain, NEMA 4X					
HD40	HD41	1/2"	3/4"			

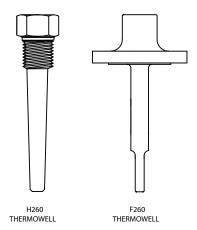
#### Notes:

#### **EXTENSION WIRE**

A selection of extension-grade thermocouple wire is available to connect the sensor to its input device. Consult Accessories section.

# **THERMOWELLS & PROTECTION TUBES**

For a complete offering of metal, ceramic and composite material thermowells and protection tubes, please see the Thermowell and Protection Tube sections.



**REPLACEMENT ELEMENT** – see Style 50

Style 50 - Beaded replacement for base-metal thermocouple





Note: Many non-standard options, including additional sheath diameters and materials, may also be available – consult AST for specific requirements.

<sup>1.</sup> See Accessories for additional information