

Mullite and Alumina Tubes

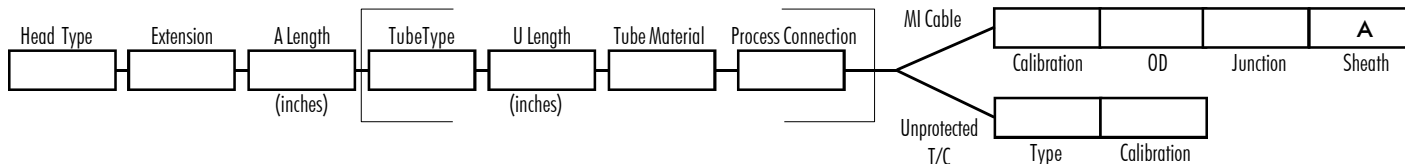
Alumina tubes are 98% pure alumina oxide and can be used with all thermocouple calibrations including noble metals. Good general purpose use. Use for all atmospheres with temperature rating of 3400°F. Has fair resistance to thermal shock.

Mullite is preferred for oxidizing atmospheres and can not be used with noble metal thermocouples. Maximum temperature rating is 3000°F. Both Mullite and Alumina should be heated prior to process insertion.

Metal Ceramic Protection Tubes - Good oxidation resistance and fair resistance to thermal shock. Can be used in temperatures up to 2500°F.

Hexoloy® Tubes - Excellent abrasion resistance and high resistance to thermal shock, also has good thermal conductivity (3 times greater than stainless steel). Due to its toughness it can be used in high pressure and velocity environments. Maximum temperature rating is 2900°F.

To order: To specify a protection tube assembly assembly, indicate the code letter or value for each requirement. To order a protection tube only, fill in only the boxes in brackets.



HEAD TYPE

- | | |
|----------------------------|-------------------------------------|
| 0 No Head | FTP Flip Top Poly (white) |
| CA Cast Aluminum | EPA Explosion Proof Aluminum |
| CI Cast Iron | EPS Explosion Proof Stainless Steel |
| CSS Cast Stainless Steel | EHA Explosion Proof Aluminum |
| LCA Large Cast Aluminum | EHI Explosion Proof Iron |
| PP Polypropylene (Black) | |
| PPS Polypropylene Sanitary | |
| FTA Flip Top Aluminum | |

Add X to the end of the order code of metallic heads, (i.e. EHAX), to add a corrosion resistant epoxy coating to meet NEMA 4X rating. For detailed description and ordering of heads see pages A-5 and A-6.

EXTENSION

- | |
|----------------------------------|
| 0 None |
| NU Nipple/Union Galvanized |
| NUS Nipple/Union Stainless Steel |

See page A-7 for additional information.

TUBE TYPE

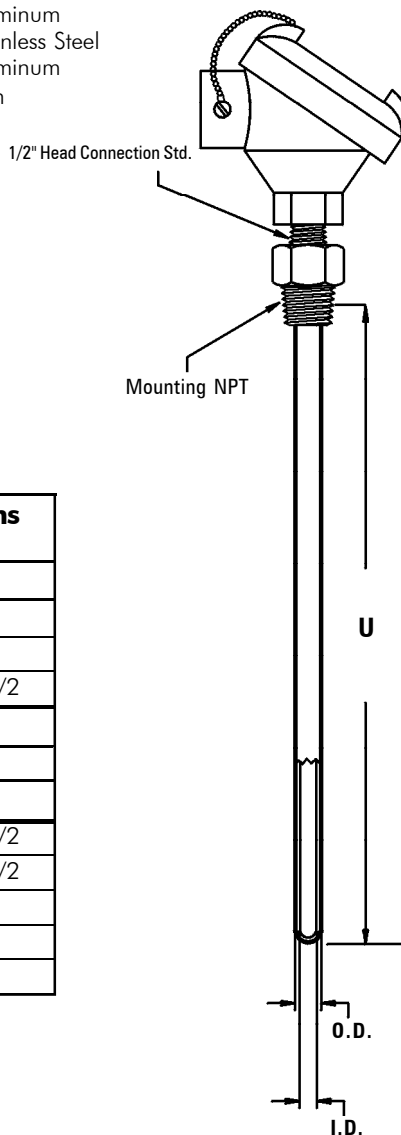
Type	ID	OD	Process Connections NPT (inches)
Mullite and Alumina			
CP1	.250	.375	1/2
CP2	.437	.687	3/4
CP3	.625	.875	1/2, 3/4, 1, 1-1/4, 1-1/2
Metal Ceramic			
CP4	.625	.875	1, 1-1/4, 1-1/2
Hexoloy®*			
CP5	.250	.375	1/2, 3/4, 1, 1-1/4, 1-1/2
CP6	.375	.625	1/2, 3/4, 1, 1-1/4, 1-1/2
CP7	.500	.750	3/4, 1, 1-1/4, 1-1/2
CP8	.500	1.00	1, 1-1/4, 1-1/2
CP9	.750	1.25	1-1/4, 1-1/2

Standard Lengths (U)

- 12
18
24
30
36

Tube Materials

- A Alumina
M Mullite
MC Metal Ceramic
HX Hexoloy®*



SENSOR TYPE

MI CABLE

Sensor Calibration

- | | |
|---|------------------------|
| K | Chromel® Alumel® |
| N | Nicrosil® Nisil® |
| R | Platinum / 13% Rhodium |
| | Pure Platinum |
| S | Platinum / 10% Rhodium |
| | Pure Platinum |
| B | Platinum / 30% Rhodium |
| | Platinum / 6% Rhodium |

For special limits on thermocouples, repeat calibration code, i.e. KK.

Sensor OD

- | | |
|-----|-------|
| 316 | 3/16" |
| 14 | 1/4" |
| 516 | 5/16" |
| 38 | 3/8" |

Sensor Junction

- | | |
|----|-----------------|
| G | Grounded |
| U | Ungrounded |
| E | Exposed |
| DG | Dual Grounded |
| DU | Dual Ungrounded |

Sensor Sheath Materials

- | | |
|---|-----------|
| A | Alloy 600 |
|---|-----------|

UNPROTECTED THERMOCOUPLE

Type	Diameter Single	Diameter Dual	Wire Gauge	Calibration
10	.150		20	J, K, T, E
15		.187	20	J, K, T, E
20	.250		14	J, K, T, E
25		.250	14	J, K, T, E
30	.500		8	J, K, T, E
35		.550	8	J, K, T, E
40	.153		24	R & S
45		.197	24	R & S