

High Temperature Protection Tubes and Assemblies

Mullite and Alumina Tubes

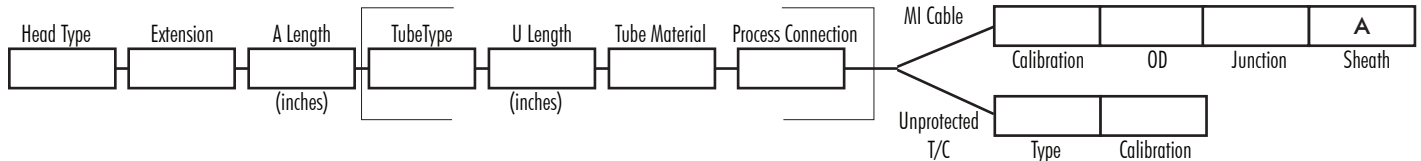
Alumina tubes are 98% pure alumina oxide and can be used with all thermocouple calibrations including noble metals. Good general purpose use. Use for all atmospheres with temperature rating of 3400°F. Has fair resistance to thermal shock.

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.

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	EPA	Explosion Proof Aluminum Atex
CSS	Cast Stainless Steel	EPS	Explosion Proof Stainless Steel
PPS	Polypropylene Sanitary	EHA	Explosion Proof Aluminum
FTA	Flip Top Aluminum	EHI	Explosion Proof Iron

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)				
			1/2	3/4	1	1-1/4	1-1/2
Mullite and Alumina							
CP1	.250	.375	X	X	X	X	X
CP2	.437	.687		X	X	X	X
CP3	.625	.875			X	X	X
Hexoloy®* Hexoloy® w/Alumina							
CP5	.250	.375	X	X	X	X	X
CP6	.375	.625		X	X	X	X
CP7	.500	.750			X	X	X
CP8	.500	1.00				X	X
CP9	.750	1.25				X	X

X = Available fitting sizes.

Standard Lengths (U)

- 12
- 18
- 24
- 30
- 36

Tube Materials

- A Alumina
- M Mullite
- HX Hexoloy®*
- HA Hexoloy® w/Alumina
- Inner Tube (Plat TC)

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
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UNPROTECTED THERMOCOUPLE

Type	Diameter		Wire Gauge	Calibration
	Single	Dual		
10	.150		20	K
15		.187	20	K
20	.250		14	K
25		.313	14	K
30	.500		8	K
35		.550	8	K
40	.153		24	R & S
45		.197	24	R & S

