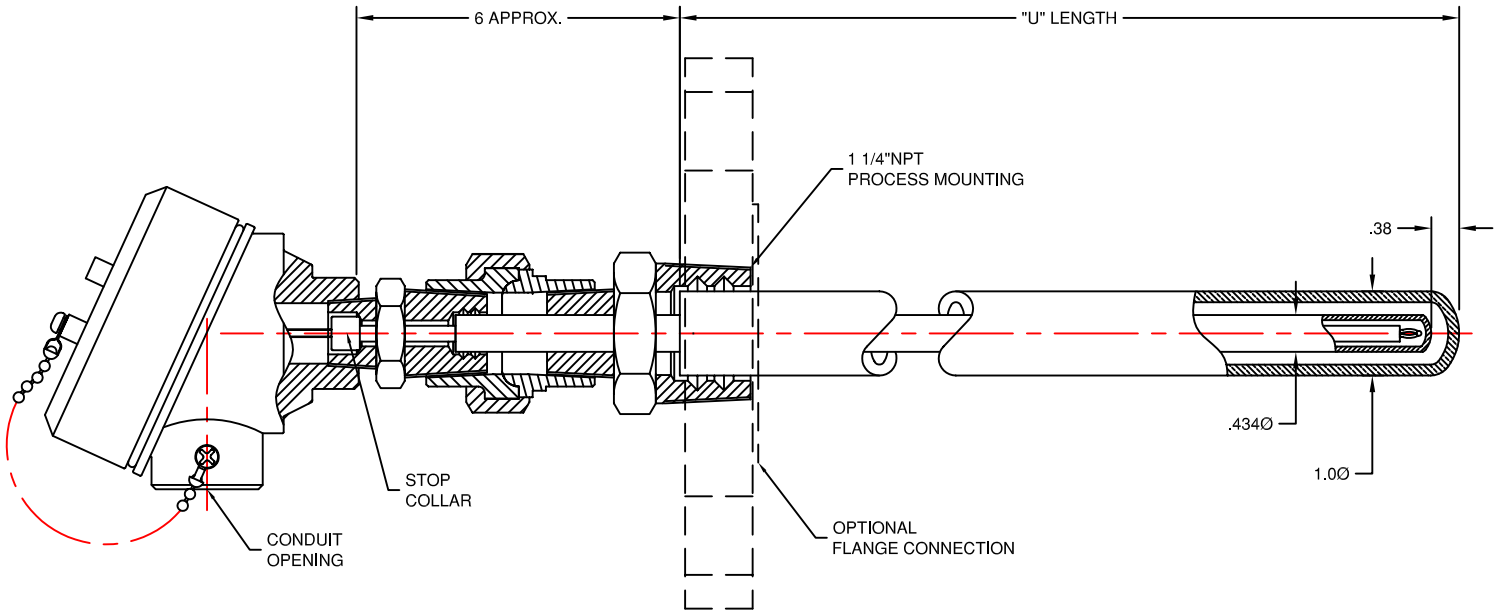


INDUSTRIAL THERMOCOUPLES



This double tube construction allows the use of an alumina primary tube which protects the element and a silicon carbide secondary (or outer) tube which protects the alumina tube from the thermal shock associated with startup conditions.

The alumina inner tube is attached to the upper fitting (between head and union) with a high temperature cement. The silicon carbide outer tube is cemented to the process fitting. Grooves for the tube are machined into the fittings provide additional holding strength. The thermocouple is equipped with a collar seated in the inner fitting to prevent the measuring junction from being crushed.

Assemblies can be used in an oxidizing atmosphere up to 1900°F (1600°C) and 3600°F (2000°C) in a reducing atmosphere.

This unique design seals the thermocouples and prevents breakage by restricting movement of the tubes. Protection tubes are field replaceable.

TC29620- - - - - -
 AN³/₄-R-12-S-1.5-300 RF

CODE	FLANGE TYPE
FF	FLAT FACE
RF	RAISED FACE
RJ	RING TYPE JOINT

CODE	FLANGE RATING
	SPECIFY

CODE	FLANGE SIZE
	IN INCHES

CODE	STRUCTURE
S	SINGLE
D	DUPLEX

CODE	"U" LENGTH
	IN INCHES

CODE		CALIBRATION
STANDARD	SPECIAL (NOTE 3)	
R	RR	PLATINUM-13%RHODIUM (+) vs PLATINUM (-)
S	SS	PLATINUM-10%RHODIUM (+) vs PLATINUM (-)
B	BB	PLATINUM-30%RHOD. (+) vs PLATINUM-6%RHOD (-)

CODE	CONDUIT OPENING
	1/2 or 3/4NPT

CODE	CONNECTION HEAD		
	MATERIAL	TYPE	NEMA
AN	ALUMINUM	WATER PROOF	4
SN	STAINLESS STEEL	WATER PROOF, CORROSION RESISTANT	4, 4X
AE	ALUMINUM	EXPLOSION PROOF (NOTE 1)	4
SE	STAINLESS STEEL	EXPLOSION PROOF, CORROSION RESISTANT (NOTE 1)	4, 4X
XD	ALUMINUM	EXPLOSION PROOF, FM, CSA APPROVED (NOTES 1 & 2)	4, 4X
A	CAST IRON	WEATHER PROOF, RUGGED	
AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

SPECIFICATIONS

- Calibration: R, S or B
- Element Size: 24 gauge
- Element Insulator: 2 or 4 hole Alumina Beads
- Stop Collar: Mullite Bead
- Upper Fitting
 - Size: 1/2" by 3/4"NPT
 - Material: Stainless Steel
- Union
 - Size: 3/4"NPT
 - Material: Steel, (Stainless Steel Available)
- Process Fitting
 - Size: 3/4" by 1 1/4"NPT
 - Material: Stainless Steel
- Primary Tube
 - Size: 7/16"OD by 5/16"ID
 - Material: High purity Alumina
- Secondary Tube
 - Size: 1"OD by 9/16"ID
 - Material: Recrystallized Silicon Carbide

Notes:

- (1) Rated NEC class 1, Groups B, C and D.
- (2) ATEX approved EEx d IIC, T6.
- (3) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993.
- (4) For an item that does not fall within the catalog description an (SP) can be added to the ordering code as part of a custom construction.



THERMO ELECTRIC

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SECTION INTC

DOUBLE CERAMIC PROTECTION TUBE
 ASSEMBLIES
 THREADED or FLANGED

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