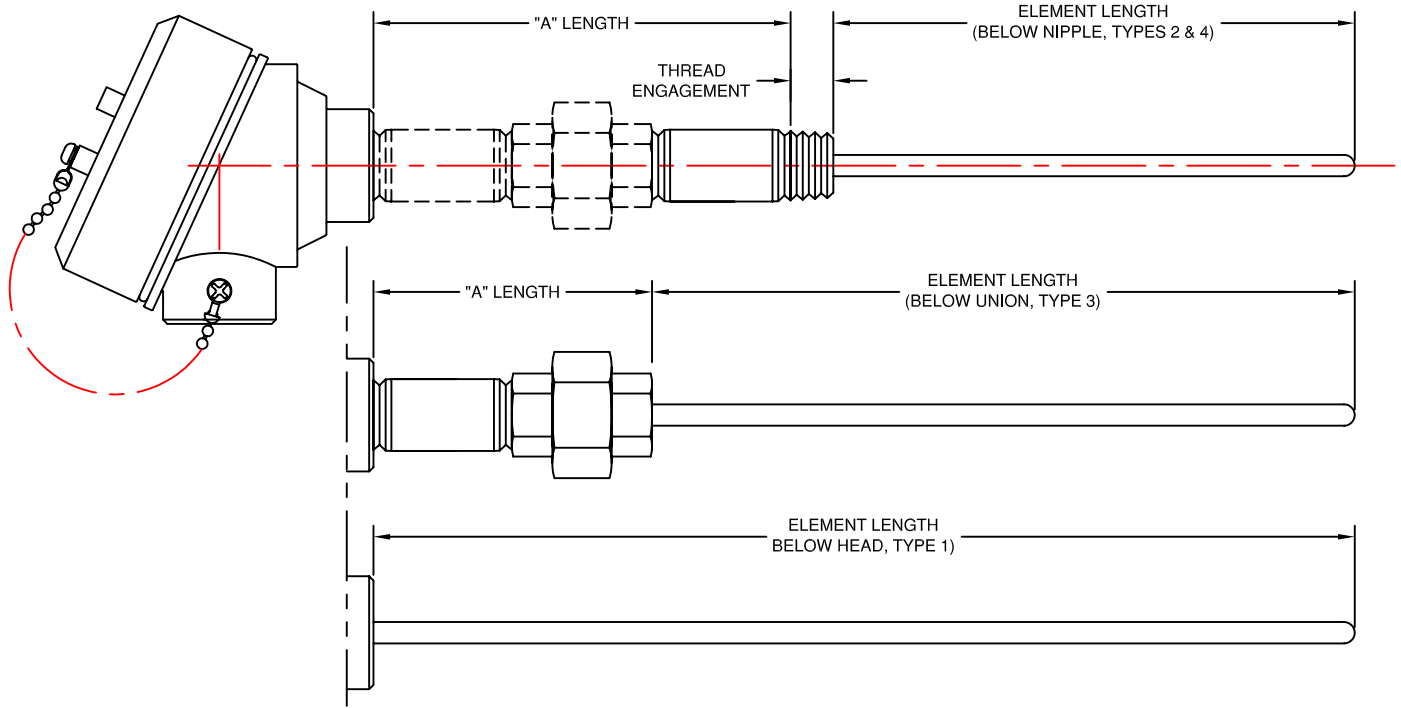


INDUSTRIAL THERMOCOUPLES



DETERMINING ELEMENT LENGTH

In most cases to determine element length for existing wells, simply measure the overall length of the well and subtract 1/2" for thread engagement. This allows for spring compression on spring loaded elements and minor adjustment to non-spring loaded elements.

Notes:

- (1) Standard Nipples - Steel, Schedule 40.
Standard Unions - Black Malleable Iron, 150#.
- OPTIONAL STAINLESS STEEL
Nipples - 304 or 316 Stainless Steel, Schedule 40 or 80.
Unions - 304 or 316 Stainless Steel.
Example Ordering Code: 4AE 3/4 1/2 6(R or R80).
- (2) Rated NEC class 1, Groups B, C and D.
- (3) ATEX approved EEx d IIC, T6.
- (4) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- (5) KKS & EES denotes stabilized thermocouple and special tolerance.
- (6) Contact factory for other calibration and sheath combinations.
- (7) 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.

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

CODE	HEAD EXTENSION
1	(NO EXTENSION, 0 "A" LENGTH)
2	NIPPLE
3	NIPPLE/UNION
4	NIPPLE/UNION/NIPPLE

CODE	CONDUIT OPENING
	1/2 or 3/4NPT

CODE	TUBE OPENING
	1/2 or 3/4NPT

CODE	"A" LENGTH
	IN INCHES

CODE		ELEMENT CONSTRUCTION			
SINGLE	DUPLEX	DIAMETER	WIRE SIZE (AWG)	INSULATION	SPRING LOADED
ASL18	ADSL18	1/8"	24	MgO-SHEATH	YES
A316	AD316	3/16"	20	MgO-SHEATH	NO
ASL316	ADSL316	3/16"	20	MgO-SHEATH	YES
A14	AD14	1/4"	18	MgO-SHEATH	NO
ASL14	ADSL14	1/4"	18	MgO-SHEATH	YES
A516	AD516	5/16"	16	MgO-SHEATH	NO
ASL516	ADSL516	5/16"	16	MgO-SHEATH	YES
A38	AD38	3/8"	15	MgO-SHEATH	NO
ASL38	ADSL38	3/8"	15	MgO-SHEATH	YES
B14	BD14	.325"	14	CERAMIC BEAD	NO
B20	BD20	.183"	20	CERAMIC BEAD	NO
B08	BD08	.57/.69"	8	CERAMIC BEAD	NO

4 AE 3/4 - 1/2 - 4 - ASL14 J G P - 10 B.N.

CODE	ELEMENT EXTENSION
B.H.	BELOW HEAD (TYPE 1)
B.N.	BELOW NIPPLE (TYPE 2 & 4)
B.U.	BELOW UNION (TYPE 3)

CODE	ELEMENT LENGTH
	(IN INCHES)

CODE		CALIBRATION
STANDARD	SPECIAL (NOTE 4)	
J	JJ	IRON (+) vs CONSTANTAN (-)
K	KK	CHROMEL (+) vs ALUMEL (-)
T	TT	COPPER (+) vs CONSTANTAN (-)
E	EE	CHROMEL (+) vs CONSTANTAN (-)
N	NN	NICROSIL (+) vs NISIL (-)
-	KKS	CHROMEL (+) vs ALUMEL (-) (NOTE 5)
-	EES	CHROMEL (+) vs CONSTANTAN (-) (NOTE 5)

CODE	ELEMENT SHEATH MATERIAL	STANDARD CALIBRATIONS (NOTE 6)
P	304 STN. STL.	J, K, T
R	316 STN. STL.	J, K, T, E, N
Q	310 STN. STL.	J, K, E
J	INCONEL 600	K, N, KKS, EES (NOTE 5)

CODE	MEASURING JUNCTION
G	SINGLE GROUNDED, GROUNDED TO SHEATH
U	SINGLE UNGROUNDED, ISOLATED FROM SHEATH
DG	DUPLEX GROUNDED, GROUNDED TO SHEATH
DU	DUPLEX UNGROUNDED, ISOLATED FROM SHEATH



SECTION INTC

ASSEMBLIES LESS THERMOWELLS

TEMPERATURE MEASUREMENT DESIGNER'S GUIDE
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Doc. No.: TE-CO010109-INTC-240