

INDUSTRIAL THERMOCOUPLES

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

B	CONNECTION HEAD			
	CODE	MATERIAL	TYPE	NEMA
	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	
	AX	ALUMINUM, LARGE DEVICE, EPOXY COATED	EXPLOSION PROOF, ATEX APPROVED (NOTE 3)	4

C	CODE	CONDUIT OPENING	D	CODE	TUBE OPENING	E	CODE	"A" LENGTH
		1/2 or 3/4NPT			1/2 or 3/4NPT (NOTE 4)			IN INCHES

F	ELEMENT CONSTRUCTION						
	CODE	SINGLE	DUPLEX	DIAMETER	WIRE SIZE (AWG)	INSULATION	SPRING LOADED
	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	
	B08	BD08	.5"-.69"	8	CERAMIC BEAD	NO	

G	CODE		CALIBRATION
	STANDARD	SPECIAL (NOTE 5)	
	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 6)
	-	EES	CHROMEL (+) vs CONSTANTAN (-) (NOTE 6)

H	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	

J	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 6)

DROP CODE WHEN USING CERAMIC BEADED ELEMENTS

K	PROTECTION TUBE TYPE			
	CODE	TUBE SIZE	PROCESS NPT	OD
	601		1/2" NPT	
	602	1/4" NPS	3/4" NPT	0.540
	603		1" NPT	
	606		3/4" NPT	
	607	1/2" NPS	1" NPT	0.840
	608		1 1/4" NPT	
	610		1" NPT	
	611	3/4" NPS	1 1/4" NPT	1.050
	612		1 1/2" NPT	
	613	1" NPS	1 1/4" NPT	1.315
	614		1 1/2" NPT	

L	TUBE SCHEDULE (INSIDE DIAMETER)				
	CODE	1/4"NPT	1/2"NPT	3/4"NPT	1"NPT
	40	0.364	0.622	0.824	1.049
	80	0.302	0.546	0.742	0.957
	160	N/A	0.464	0.612	0.815
XXS	N/A	N/A	0.434	0.599	

Notes:

- 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: 3AE 3/4 1/2 6(R or R80).
- Rated NEC class 1, Groups B, C and D.
- ATEX approved EEx d IIC, T6.
- For 1/4" and 1" pipe size a reducing bushing or enlarger will be used to fit tube opening, specify 1/2 for 1/4" pipe size and 3/4 for 1" pipe size.
- Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993
- KKS & EES denotes stabilized thermocouple and special tolerance.
- Contact factory for other calibration and sheath combinations.
- 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.

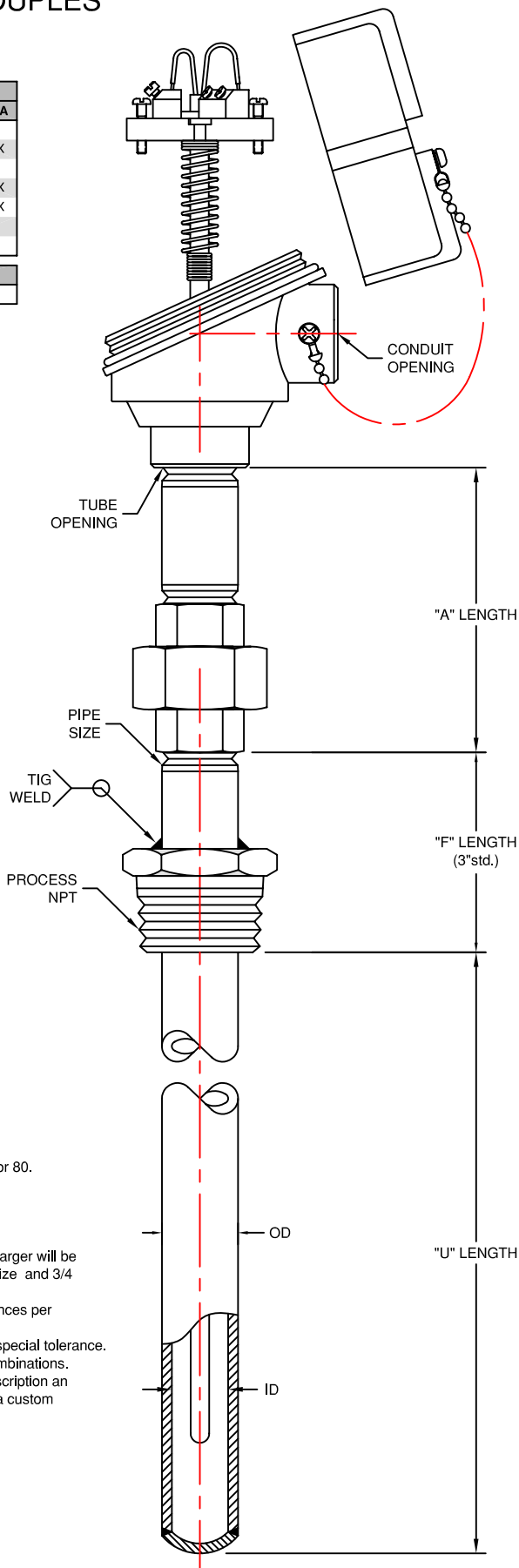
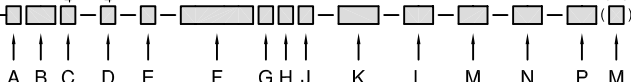
M	WELL MATERIAL	
	P	304 STAINLESS STEEL
	Q	310 STAINLESS STEEL
	R	316 STAINLESS STEEL
	PLorRL	304or316 S. S. (LOW CARBON)
	N	CARBON STEEL
J	INCONEL 600	
H	HASTELLOY C276	

N	CODE	"F" LENGTH
		IN INCHES (3" STD.)

P	CODE	"U" LENGTH
		IN INCHES

USE ONLY IF BUSHING MATERIAL IS NOT THE SAME AS TUBE MATERIAL

EXAMPLE: 3 AE 3/4 - 3/4 - 3 - ASL14 K U R - 611 - 80 - R - 3 - 48 (N)



TEMPERATURE MEASUREMENT DESIGNER'S GUIDE
WWW.THERMO-ELECTRIC-DIRECT.COM

SECTION INTC

PIPE WELL ASSEMBLIES THREADED PROCESS CONNECTION

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Doc. No.: TE-CO010109-INTC-130