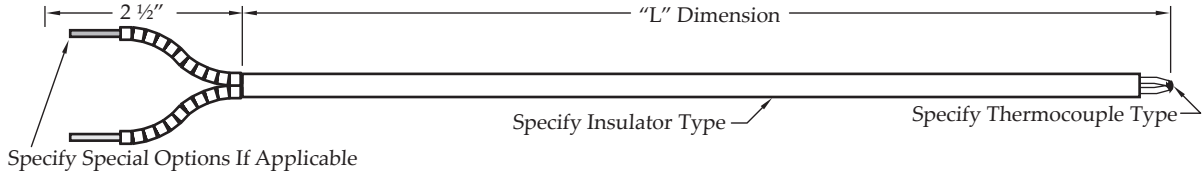
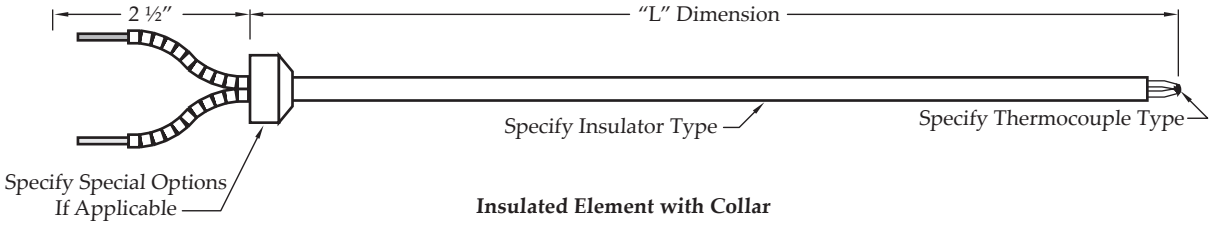
Industrial Process Thermocouples

NOBLE METAL THERMOCOUPLE ELEMENTS

The TENE Style Thermocouple is a noble metal element designed as a replacement for high temperature protection tube assemblies.



Insulated Element without Collar



Insulated Element with Collar

STYLE TENE - Noble Metal Element Thermocouple

Table 1: Thermocouple Quantity

Code	Description
S	Single
D	Dual

Table 2: Calibration Type

Code	Size
R	R Calibration
S	S Calibration
B	B Calibration
C	C Calibration

Table 3: Insulator Size

Code	Size
B	⅛" (.125")
C	3/16" (.188")
D	¼" (.250")

Table 4: Insulator Material

Code	Description
A	Alumina
M	Mullite

Table 5: "L" Dimension

Specify in inches. See table on page 27 for codes.

Table 6: Element Position

Code	Description
S	Surface
R	Recessed

Table 7: Collar

Code	Description
0	No Collar
C	Collar

Table 8: Limits of Error

Code	Description
0	Standard
L	Special

Table 9: Termination

Code	Termination
0	2" Split Ends
1	#6 Spade Lug
3	Standard Plug
M	Mini Plug

Part Number Sequence

TENE-SR24-CM06H0000

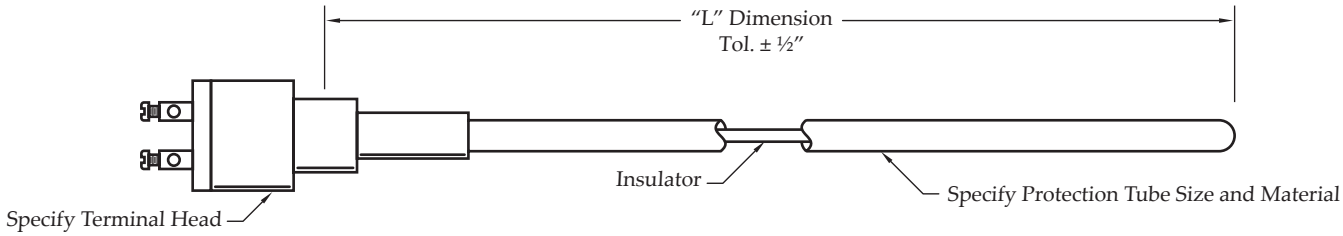
TENE	-	S	R	24	-	C	M	06H	0	0	0	0
TENE		Table 1	Table 2			Table 3	Table 4	Table 5	Table 6	Table 8	Table 7	Table 9
Sensor Type & Style No.		Thermocouple Quantity	Calibration Type	Gauge		Insulator Size	Insulator Material	"L" Dimension	Element Position	Limits of Error	Collar	Termination

190 Detroit Street, Cary, Illinois 60013 • Phone: 847-639-5600 • Fax: 847-639-2199 • Web: www.durexindustries.com • TOLL FREE: 800-762-3468

Industrial Process Thermocouples

NOBLE METAL THERMOCOUPLE WITH SINGLE CERAMIC TUBE

The TSPT Style Thermocouple assembly features a noble metal thermocouple and single ceramic protection tube. A variety of process connection and terminal housing options are available.



STYLE TSPT - Single Tube Assembly

Table 1: Thermocouple Type

Element Type and Gauge			
Code	**T/C Quantity**	**Calibration Type**	**Gauge**
SR24	Single	R	24
SS24	Single	S	24
SB24	Single	B	24
DR24	Dual	R	24
DS24	Dual	S	24
DB24	Dual	B	24

Table 2: Protection Tube

Code	Size/Material
A	⅜ OD Mullite
B	⅜ OD Alumina
C	11/16 OD Mullite
D	11/16 OD Alumina
X	Special

Table 3: "L" Dimension

Specify in inches. See table on page 27 for codes.

Table 4: Process Connection

Code	Description
0	No Process Fitting
G	½" NPT, Brass Bushing
H	½" NPT, Stainless Steel Bushing
J	¾" NPT, Brass Bushing
K	¾" NPT, Stainless Steel Bushing

Table 5: Termination Options

Code	Termination Type
K	Open Head Brass Terminal
B	¾" NPT Conduit, Aluminum Head
C	½" NPT Conduit, Cast Iron Head

Sensors

Part Number Sequence

TSPT-SR24-C06H-KB

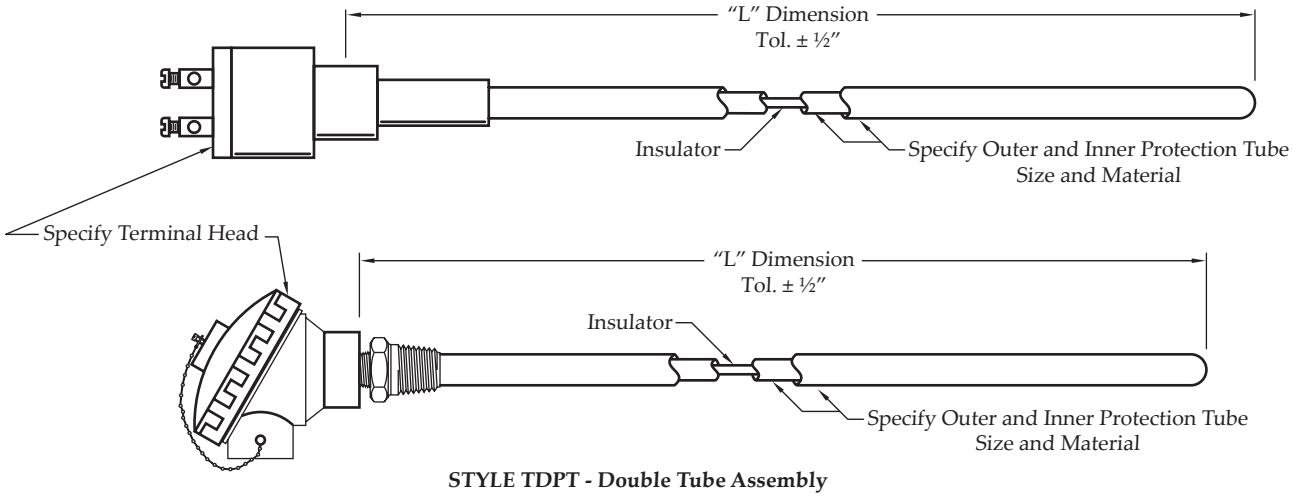
TSPT	-	SR24	-	C	06H	-	K	B
TSPT		Table 1		Table 2	Table 3		Table 4	Table 5
Sensor Type & Style No.		Thermocouple Type		Protection Tube	"L" Dimension		Process Connection	Termination Options

190 Detroit Street, Cary, Illinois 60013 • Phone: 847-639-5600 • Fax: 847-639-2199 • Web: www.durexindustries.com • TOLL FREE: 800-762-3468

Industrial Process Thermocouples

NOBLE METAL THERMOCOUPLE WITH DOUBLE CERAMIC TUBE

The TDPT Style Thermocouple assembly features a noble metal thermocouple element with a primary and secondary ceramic protection tube for additional protection in extreme environments.



STYLE TDPT - Double Tube Assembly

Table 1: Thermocouple Type

Element Type and Gauge			
Code	**T/C Quantity**	**Calibration Type**	**Gauge**
SR24	Single	R	24
SS24	Single	S	24
SB24	Single	B	24
DR24	Dual	R	24
DS24	Dual	S	24
DB24	Dual	B	24

Table 2: Outer Protection Tube

Code	Size/Material
LL	$^{11}/_{16}$ OD Alumina
LW	$^{11}/_{16}$ OD Mullite
PZ	⅞ OD LT-1
UA	1.05" OD Inconel® 601

"L" Dimension
Specify in inches.
See table on page 27 for codes.

Table 4: Inner Protection Tube

Code	Size
F	⅜ Diameter

Table 5: Process Connection

Code	Description
0	No Process Fitting
G	½" NPT, Brass Bushing
H	½" NPT, Stainless Steel Bushing
J	¾" NPT, Brass Bushing
K	¾" NPT, Stainless Steel Bushing

Table 6: Termination Options

Code	Termination Type
K	Open Head Brass Terminal
B	¾" NPT Conduit, Aluminum Head
D	¾" NPT Conduit, Cast Iron Head

Part Number Sequence

TDPT-SR24-LL06HF-KB

TDPT	-	SR24	-	LL	06H	F	-	K	B
TDPT		Table 1		Table 2	Table 3	Table 4		Table 5	Table 6
Sensor Type & Style No.		Thermocouple Type		Outer Protection Tube	"L" Dimension	Inner Protection Tube		Process Connection	Termination Options

190 Detroit Street, Cary, Illinois 60013 • Phone: 847-639-5600 • Fax: 847-639-2199 • Web: www.durexindustries.com • TOLL FREE: 800-762-3468

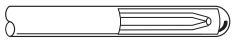
DUREX INDUSTRIES
closing the loop on thermal solutions

Industrial Process Thermocouples

JUNCTION TYPES

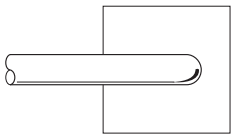
EXPOSED (E)
Joined and welded wires.
Specified where fast response is required.

GROUNDED (G)
Junction is seal welded integrally to the sheath.
Protects wire from corrosive conditions.



UNGROUNDED (U)
Junction is electrically insulated from seal welded sheath. Design helps prevent stray EMF's.

NECKDOWN (N)
Neckdown provides faster response.
Junction can be single or dual circuit and grounded or ungrounded.



PAD (P)
Pad is designed for welding directly to boiler or process tubes for sensing skin temperatures.

SHEATH DIAMETERS

Sheath Code	T	Y	W	A	B	V	C	D	E	F	H
Sheath Diameter	.020″	.032″	.040″	.062″	.125″	.156″	.188″	.250″	.313″	.375″	.500″
Wire Gauge	38	34	33	30	24	22	20	18	16	15	11
Max Length	100′	150′	200′	400′	250′	200′	175′	100′	55′	40′	30′

PART NUMBER CODE DEFINITIONS

"L" Dimensions & "U" Dimensions				"A" Dimensions		Fractional Dimension Letter Code			
"L" and "U" dimensions are specified in whole inches and use a letter Code for the fraction. (Enter 0 when there is no fraction) Enter the three digit code per examples below:				"A" dimensions are specified in whole inches only. Enter the three digit code as follows:		1/16″	A	11/16″	L
						1/8″	B	3/4″	M
						3/16″	C	13/16″	N
						1/4″	D	7/8″	P
						5/16″	E	15/16″	R
3″	030	10 5/8″	10K			3/8″	F	1″	S
4 1/2″	04H	12″	120	9″	009	7/16″	G	0	No
6 1/4″	06D	15 3/8″	15F	12″	012	1/2″	H	Fraction	
7 7/8″	07P	17 3/4″	17M	36″	036	9/16″	J		
9 5/8″	09K	22 1/8″	22B	144″	144	5/8″	K		

190 Detroit Street, Cary, Illinois 60013 • Phone: 847-639-5600 • Fax: 847-639-2199 • Web: www.durexindustries.com • TOLL FREE: 800-762-3468