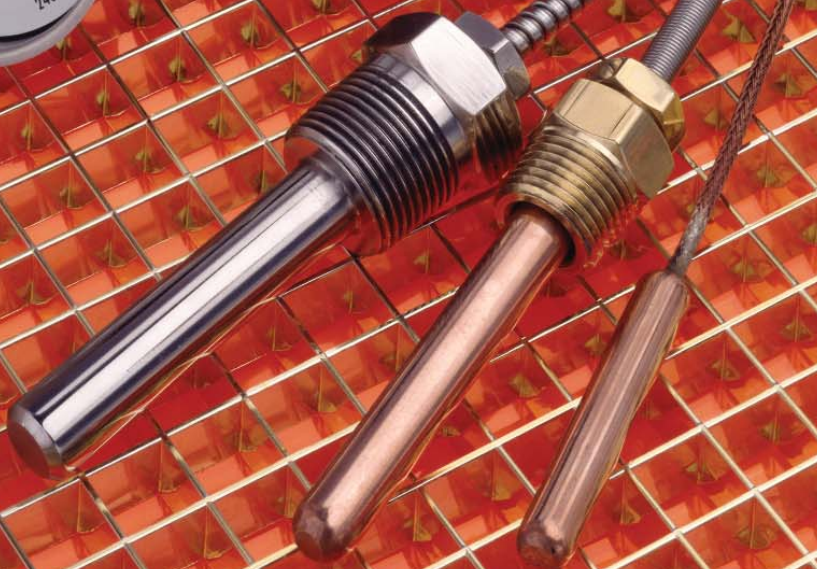
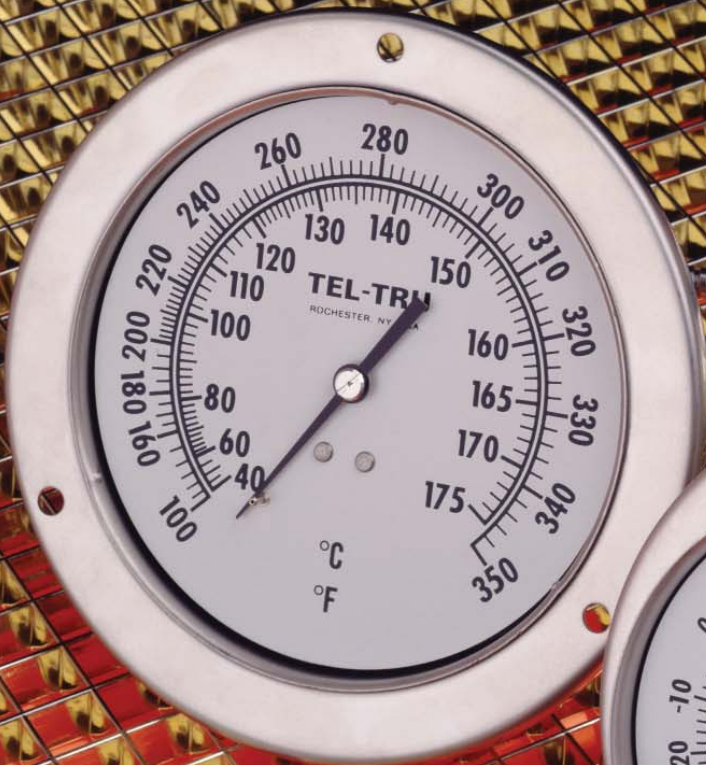


TEL-TRU Vapor Tension Thermometers



**World Class
Thermometers**

Vapor Tension Thermometers



TEL-TRU Manufacturing Company, for many years recognized as a leader in the manufacturing of Bimetal Dial Thermometers for industrial, OEM and laboratory purposes, now offers a complete line of Vapor Tension Thermometers.

TEL-TRU Vapor Tension Thermometers provide an accurate indication of critical temperatures within recommended working zones. Dial graduations are non-linear with the distance between graduations increasing as the temperature range increases.

TEL-TRU Vapor Tension Thermometers offer dependability, durability, high accuracy, low ambient error and are available in various case sizes and styles.

Features

Case Sizes: 2", 2-1/2", 3-1/2", 4-1/2"

Case Type:

- Front flange
- U clamp
- Back flange
- Front flange, semi flush
- Adjustable bracket

Case Material: Stainless Steel

Dial: White coated aluminum with large black numbers and graduations. Easy to read from any angle.

Bulb: Copper or Stainless Steel

Capillary: Copper – plain or with braided armor
Stainless Steel – plain or with interlocking armor

Window: Glass or polycarbonate

Pointer: Slotted type for field zero adjustment

Accuracy: Within one scale division in recommended working zone

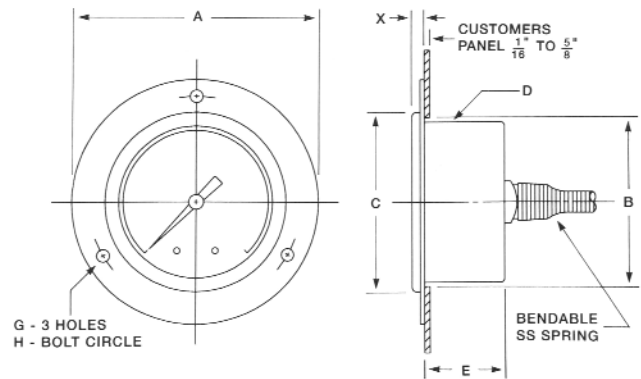
Ranges: From -40°F (-40°C) to 350°F (175°C)



2" Thermometers

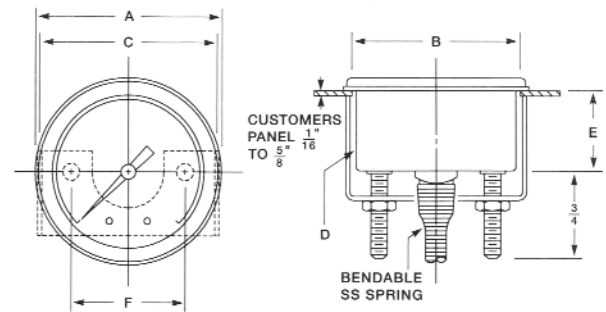
Front Flange Case

Code	Case Size	Conn.	A	Panel Hole B	C	D	E	F	G	H
V20 FB	2"	Back	2 ¹⁵ / ₁₆ "	2 ¹ / ₁₆ "	2 ¹¹ / ₆₄ "	2 ¹ / ₃₂ "	3 ¹ / ₃₂ "	-	9 ⁹ / ₆₄ "	2 ⁹ / ₁₆ "



U-Clamp Case

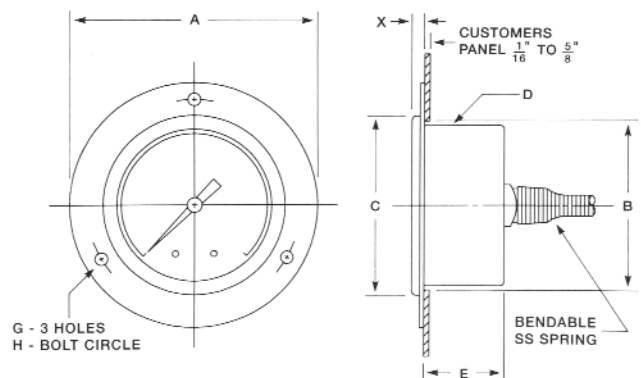
Code	Case Size	Conn.	A	Panel Hole B	C	D	E	F
V20 UB	2"	Back	2 ⁷ / ₃₂ "	2 ¹ / ₁₆ "	-	2 ¹ / ₃₂ "	3 ¹ / ₃₂ "	1 ³ / ₈ "



2-1/2" Thermometers

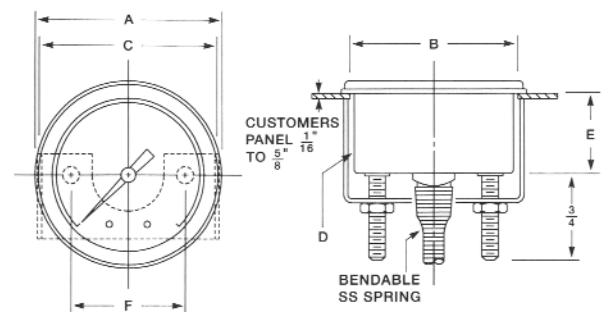
Front Flange Case

Code	Case Size	Conn.	A	Panel Hole B	C	D	E	F	G	H
V25 FB	2 1/2"	Back	3 ¹¹ / ₁₆ "	2 ³⁹ / ₆₄ "	2 ⁷ / ₈ "	2 ⁹ / ₁₆ "	1"	-	1 ¹¹ / ₆₄ "	3 ⁵ / ₁₆ "



U-Clamp Case

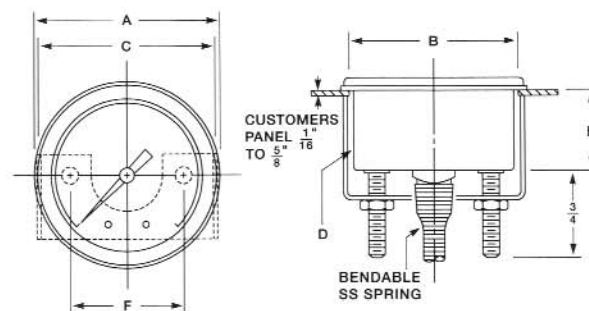
Code	Case Size	Conn.	A	Panel Hole B	C	D	E	F
V25 UB	2 1/2"	Back	2 ¹³ / ₁₆ "	2 ³⁹ / ₆₄ "	-	2 ⁹ / ₁₆ "	1"	2"



3-1/2" Thermometers

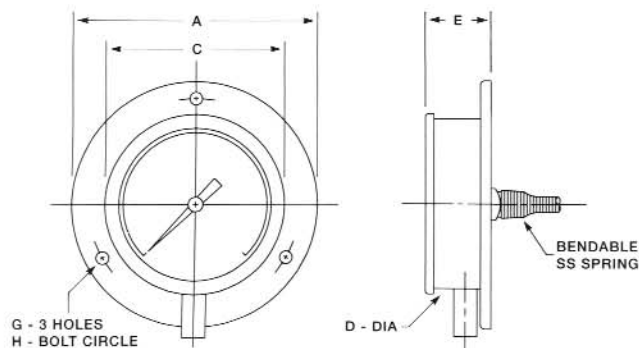
U-Clamp Case

Code	Case Size	Conn.	A	Panel Hole B	C	D	E	F
V-35 QB	3 1/2"	Back	3 7/8"	3 5/8"	-	3 19/32"	1"	3 1/16"



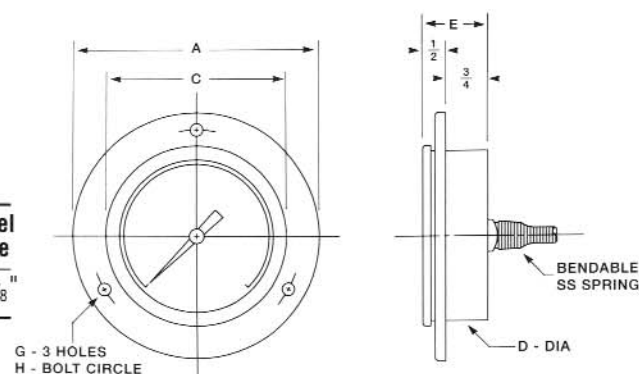
Back Flange Case

Code	Case Size	Conn.	A	C	D	E	G	H
V35 BB	3 1/2"	Back	4 3/4"	3 11/16"	3 19/32"	1 1/4"	5/32"	4 5/16"
V35 BL	3 1/2"	Bottom	4 3/4"	3 11/16"	3 19/32"	1 1/4"	5/32"	4 5/16"



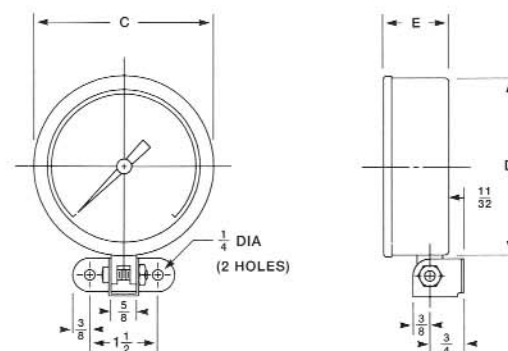
Semi-Flush Case

Code	Case Size	Conn.	A	C	D	E	G	H	Panel Hole
V35 RB	3 1/2"	Back	4 3/4"	3 11/16"	3 19/32"	1 1/4"	5/32"	4 5/16"	3 5/8"



Adjustable Bracket Case

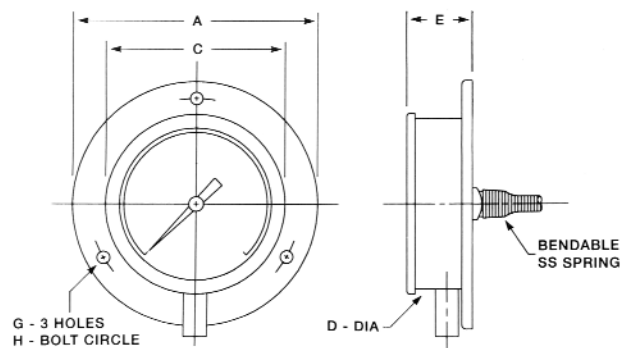
Code	Case Size	Conn.	A	C	D	E
V35 ZL	3 1/2"	Bottom	-	3 11/16"	3 19/32"	1 1/4"



4-1/2" Thermometers

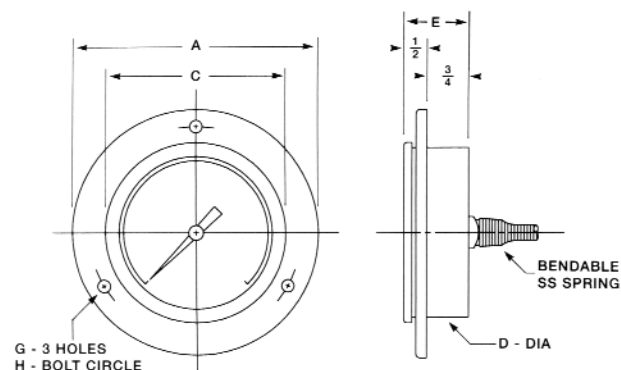
Back Flange Case

Code	Case Size	Conn.	A	C	D	E	G	H
V45 BB	4 1/2"	Back	5 7/8"	4 11/16"	4 19/32"	1 1/4"	7/32"	5 3/8"
V45 BL	4 1/2"	Bottom	5 7/8"	4 11/16"	4 19/32"	1 1/4"	7/32"	5 3/8"



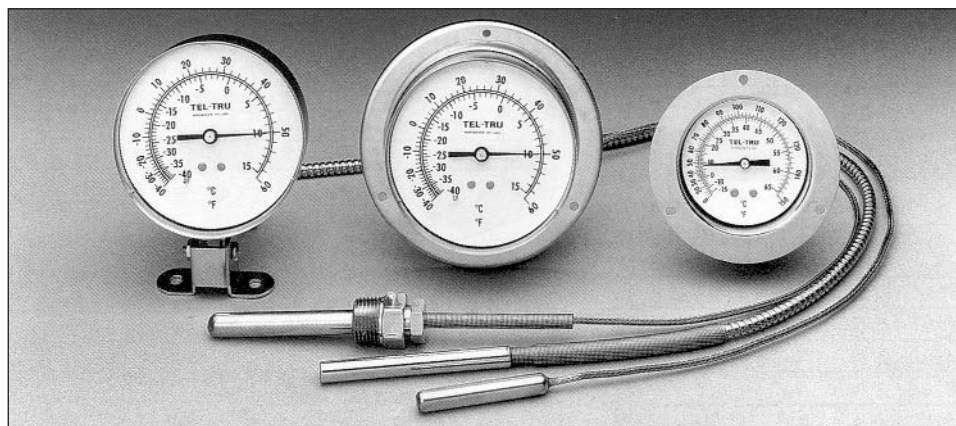
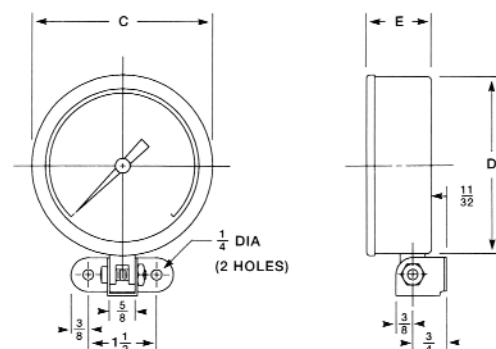
Semi-Flush Case

Code	Case Size	Conn.	A	C	D	E	G	H	Panel Hole
V45 RB	4 1/2"	Back	5 7/8"	4 11/16"	4 19/32"	1 1/4"	7/32"	5 3/8"	4 5/8"



Adjustable Bracket Case

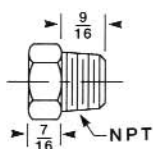
Code	Case Size	Conn.	A	C	D	E
V45 ZL	4 1/2"	Bottom	-	4 11/16"	4 19/32"	1 1/4"



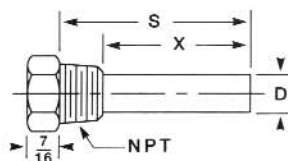
Process Connection

Table 5:

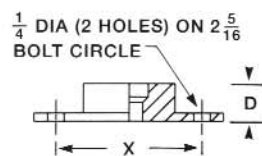
Code 1, 2
Union
Connection



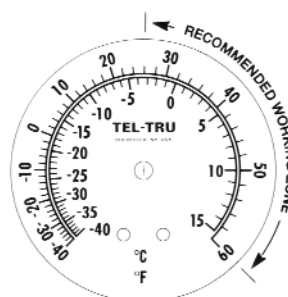
Code 3, 4
Thermowell
Connection



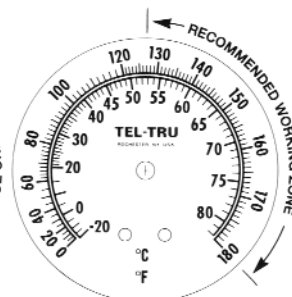
Code 7
Flange
Connection



Vapor Thermometer Dials



Code DA
-40/60°F
-40/15°C

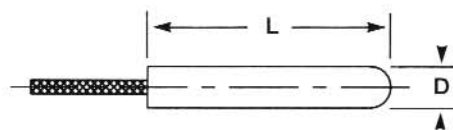


Code DF
0/180°F
-20/82°C

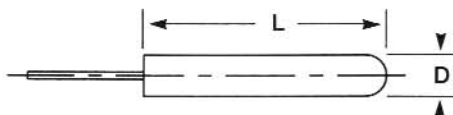
Thermal System Selection

Table 7:

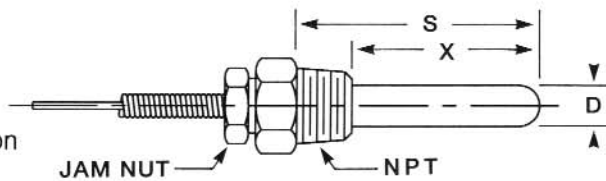
Code 2
Plain Bulb
Braided Capillary



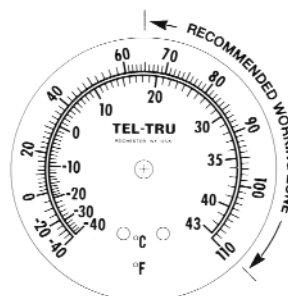
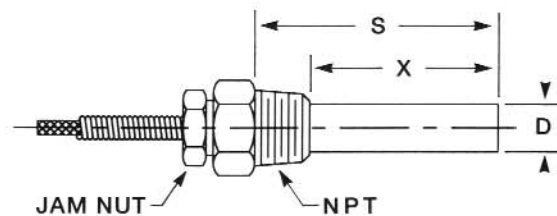
Code 3
Plain Bulb
Plain Capillary



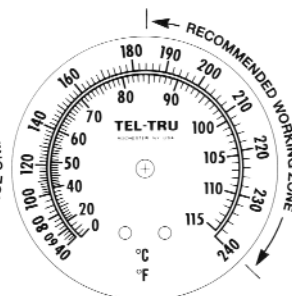
Code 5, 8, 9
Capillary with
Union Connection



Code 5, 8, 9
Capillary with
Thermowell



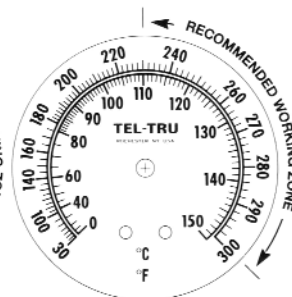
Code DB
-40/110°F
-40/43°C



Code DG
40/240°F
0/115°C



Code DC
-20/100°F
-30/38°C



Code DH
30/300°F
0/150°C

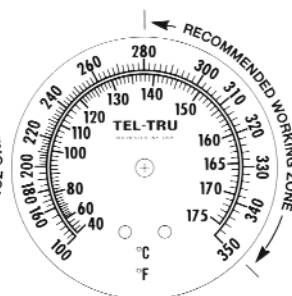
Bulb Dimensions

Code	Plain Bulb		Union Connection			Thermowell Connection			Flange Connection	
	L	D	X	S	D	X	S	D	X	D
1	N/A	N/A	1 13/16"	2 3/8"	7/16"	1 15/16"	2 1/2"	9/16"	2 3/16"	7/16"
2	3 7/16"	3/8"	2 5/8"	3 3/8"	7/16"	2 5/8"	3 3/8"	9/16"	3"	7/16"
3	4 7/8"	3/8"	4 5/8"	5 3/8"	7/16"	4 5/8"	5 3/8"	9/16"	5"	7/16"
4	7 7/8"	3/8"	6 5/8"	7 3/8"	7/16"	6 5/8"	7 3/8"	9/16"	7"	7/16"
6	2 1/2"	3/8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: "X" for flange connection is the insertion length from tip of bulb to face of flange (not pictured)



Code DE
0/150°F
-15/65°C



Code DJ
100/350°F
40/175°C

Note: Accuracy is $\pm$ one graduation in the recommended working zone



How to Order:

Select proper code from tables, in order, and combine to provide complete thermometer description.

Example

	V25	U	B	4	1	2	3	1	05	DE	0
Table 1 Case Size:	2-1/2"										
Table 2 Case Type:	SS U Clamp										
Table 3 Connection:	Back										
Table 4 Case Front/Window	Glass w/SS ring										
Table 5 Process Connection	1/2" N PT Union										
Table 6 Process Conn. Material	304 SS										
Table 7 Thermal System	Plain Bulb - Capillary SS										
Table 8 Bulb Selection	7/16" x 2.5"										
Table 9 Capillary Length	05'										
Table 10 Temperature Range	0/150°F & -15/65°C										
Table 11 Options	None										

Table 1:

Code	Case Size
V 20	2"
V 25	2 1/2"
V 35	3 1/2"
V 45	4 1/2"

Table 2:

Code	Case Type & Material
F	SS Front Flange 2" & 2 1/2"
U	SS U-Clamp 2" & 2 1/2"
Q	SS U-Clamp 3 1/2"
B	SS Back Flange 3 1/2" & 4 1/2"
R	SS Front Flange, semi flush 3 1/2" & 4 1/2"
Z	SS Adjustable bracket 3 1/2" & 4 1/2"

Table 3:

Code	Connection
B	Back Connection (N/A Type Z Case)
L	Lower (N/A Type F, U, Q, R Cases)

Table 4:

Code	Case Front and Window
3	Lexan snap in lens
4	Glass lens with SS ring 2" & 2 1/2"
5	Glass lens w/Chrome/brass ring 'Q' 3 1/2"
7	Glass lens w/rubber ring 3 1/2" & 4 1/2"
8	Glass lens w/crimped SS ring water resist. 2" & 2 1/2"
9	Lexan Threaded lens 2", 2 1/2", 3 1/2"

Table 5:

Code	Process Connection
1	Union 1/2" npt
2	Union 3/4" npt
3	Thermowell 1/2" npt
4	Thermowell 3/4" npt
7	Air duct Flange union
9	Plain bulb no fitting

Table 6:

Code	Process Connection material
1	Brass
2	304 Stainless Steel
3	316 Stainless Steel
5	Aluminum - air duct only
0	none - plain bulb

Table 7:

Thermal System				
Code	Bulb Type	Bulb Material	Capillary Material	Protection
2	Plain	Copper	Copper	Braided
3	Plain	SS	SS	none
5	Union	Copper	Copper	Braided
8	Union	SS	SS	Armored
9	Union	SS	SS	None

Table 8:

Bulb Selection			
Code	Max. Cap. Length	Union Dim.	Plain Dim.
1	10 ft.	7/16" x 2.5"	N/A
2	25 ft.	7/16" x 3.4"	3/8" x 3.4"
3	50 ft.	7/16" x 5.4"	3/8" x 5.4"
4	99 ft.	7/16" x 7.4"	3/8" x 7.4"
6	5 ft.	N/A	3/8" x 2.5"

Table 9:

Code	Capillary Length - Ft.
XX	Use 2 digits; ex. 05', 10'

Table 10:

Dual Temperature Ranges					
Code	°F	°C	Code	°F	°C
DA	-40/60	-40/15	DF	0/180	-20/82
DB	-40/110	-40/43	DG	40/240	0/115
DC	-20/100	-30/38	DH	30/300	0/150
DE	0/150	-15/65	DJ	100/350	40/175

See page 6 for recommended working zone. Other ranges available.

Table 11:

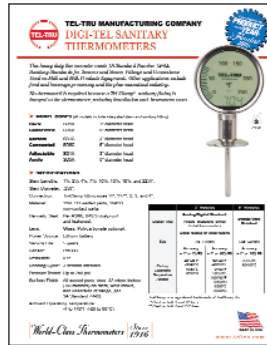
Code	Options
0	None
1	Vibration Dampening



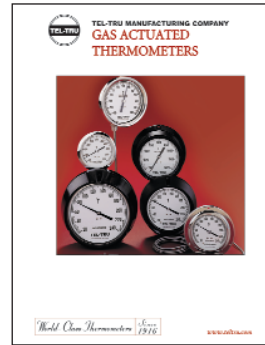
ADDITIONAL PRODUCTS AVAILABLE FROM TEL-TRU



Bimetal Thermometers
Catalog number BT1100



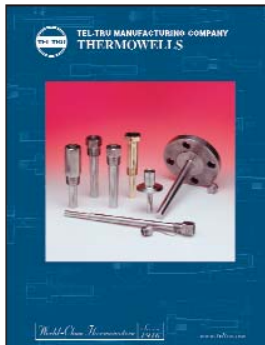
Sanitary Bimetal and Digi-Tel Sanitary Thermometers
Catalog numbers SBTSH804 and DTSSHT805



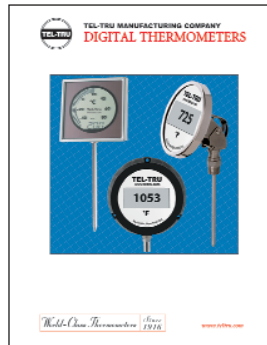
Gas Actuated Thermometers
Catalog number GA0203



Glass Industrial Thermometers



Thermowells
Catalog number TW1003



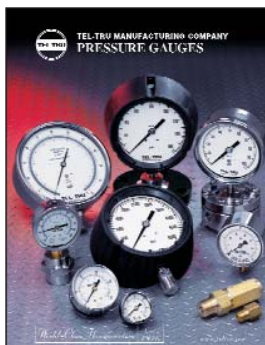
Digi-Tel Thermometers
Catalog number DT0903



Digi-Tel Temperature Transmitter
Catalog number DTTT904



Electronic Calibration Instruments
Catalog numbers C5101104, C5121104, and C5301104



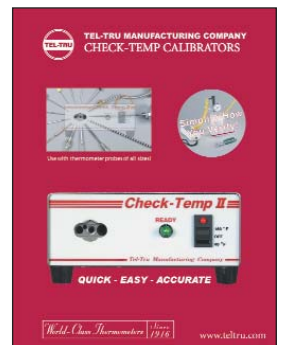
Pressure Gauges
Catalog number PG706



Sanitary Pressure Gauges
Catalog number SPG306



Pressure Transmitters
Catalog number PT404



Check-Temp Calibrators
Catalog number CTC401



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Catalog 8549