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## **General Information**

### **Food, Dairy, Beverage & Pharmaceutical Section**

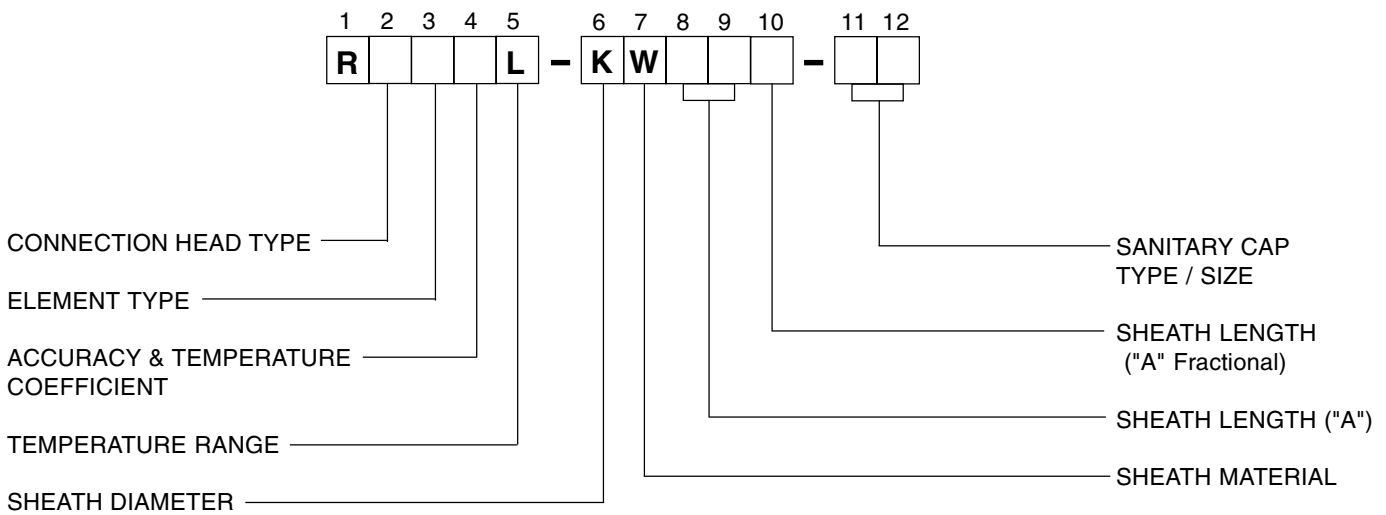
SensorTec's line of temperature probes for the Food, Dairy, Beverage & Pharmaceutical industries, is made of the highest quality materials and workmanship. SensorTec's extensive research and development on the construction of these probes has lead to some of the most durable and accurate probes available in the industry.

All sanitary procedures and materials comply with the 3-A Symbol Council Authorization # 74-00. The polypropylene connection heads, used in many applications, comply with FDA guidelines.

#### **Applications:**

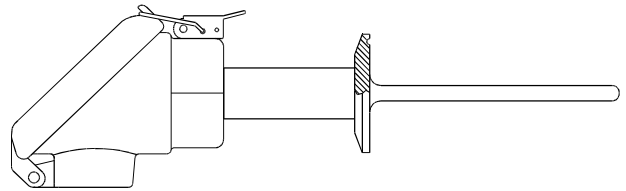
- Milk, cheese and various dairy products processing
- Beverage processing
- Meat smokehouses
- Confectionery processing
- Blood processing equipment

# PART NUMBERING EXAMPLES FOR FOOD, DAIRY, BEVERAGE & PHARMACEUTICAL SENSORS



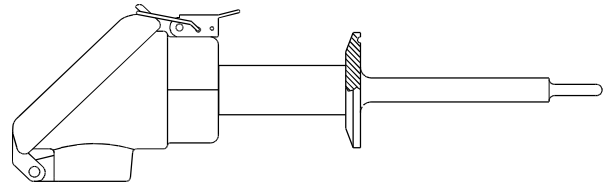
### **RVBGL-KW04A-A3**

RTD-100<sub>W</sub>, 3 Wire, Class B, .00385, Low Temp,  
Sanitary Connected 1/4" Dia. Sheath 4" Long with  
a 2" 16 AMP Clamp Cap - Refer to Page S-1

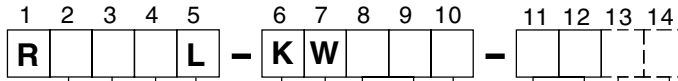
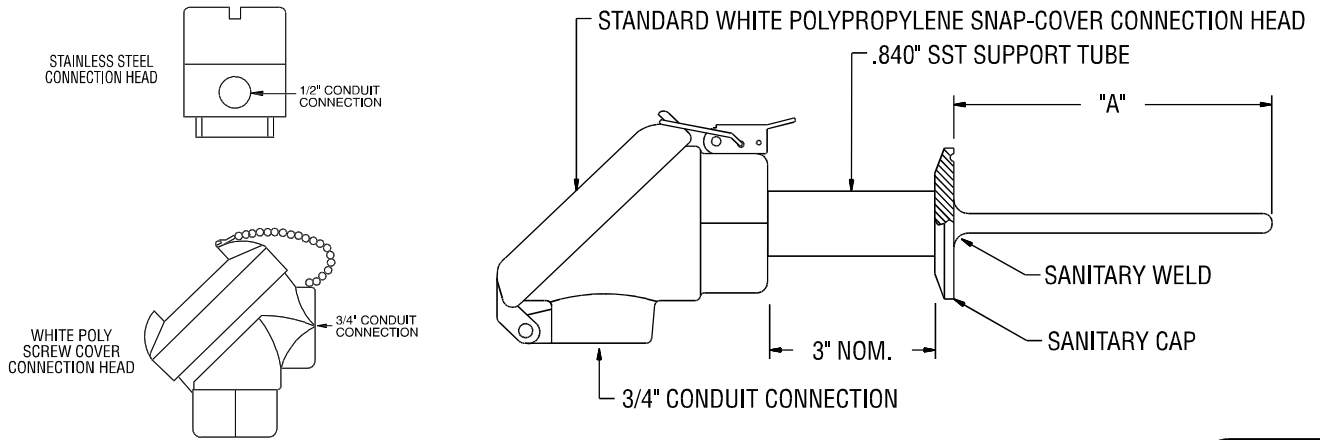


### **RVBJL-NIW04A-A4**

RTD-100<sub>W</sub>, 3 Wire, Class A, .00385, Low Temp,  
Sanitary Connected Reduced Tip 3/16" Dia.  
Sheath 1" Long, 3/8" Dia. Sheath 3" Long with a  
2-1/2" 16 AMP Clamp Cap - Refer to Page S-2



# STRAIGHT STEM SANITARY CONNECTED RTD's



### CONNECTION HEAD TYPE<sup>1</sup>

Code	Description
V	Snap-cover white polypropylene
5	Screw-cover white polypropylene
8	Screw-cover stainless steel

### ELEMENT TYPE

Resistance @ 0°C	3 Wire
Platinum 100 w Single	B
Platinum 100 w Dual	E

### ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

### TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

### SHEATH DIAMETER

K = .250 (1/4")

### SHEATH MATERIAL

W = 316 SST

### SHEATH LENGTH ("A")

Whole inches (EX. 04 = 4")

### SHEATH LENGTH (Fractional)

A = None	L = 1/2"
C = 1/8"	N = 5/8"
G = 1/4"	Q = 3/4"
J = 3/8"	S = 7/8"

### FEATURES:

- Clean-In-Place Design for Food, Dairy, and Beverage Applications
- 3-A Symbol Council Authorization #74-00
- Fast Response Design
- Superior Stem Strength
- FDA Compliant White Polypropylene Connection Head Standard
- Single or Dual (Redundant Styles)
- Minimum #4 RMS High Polish on complete assembly
- Washdown Resistant Construction
- No Threads Exposed to Collect Bacteria (On Snap-Cover Head)
- Highly Vibration and Shock Resistant Stem and Element

### OPTION

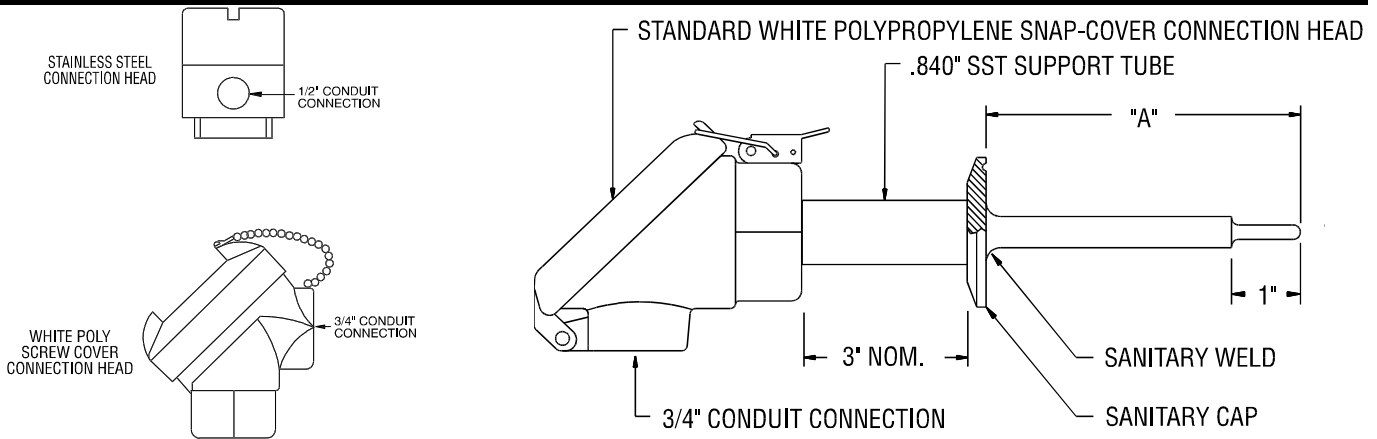
SR = 1/2" NPT SST Conduit Reducer

### SANITARY CAP TYPE & SIZE

Cap type	Size>	1-1/2"	2"	2-1/2"	3"
16 AMP clamp cap	A2	A3	A4	A5	
16A bevel seat	B2	B3	B4	B5	
16APV APC	C2	C3	C4	C5	
16AI-14I I-line	D2	D3	D4	D5	
K16A	E2	E3	E4	E5	
16AQ-14Q	F2	F3	F4	F5	
16A w/#13-H nut	G2	G3	G4	G5	
16APC w/#13-H nut	H2	H3	H4	H5	
16AH H-line	J2	J3	J4	J5	

<sup>1</sup>Consult sales for availability of epoxy coated aluminum connection heads.

# REDUCED STEM SANITARY CONNECTED RTD'S



Authorization  
Standard #74-00

## CONNECTION HEAD TYPE<sup>1</sup>

Code	Description
V	Snap-cover white polypropylene
5	Screw-cover white polypropylene
8	Screw-cover stainless steel

## ELEMENT TYPE

Resistance @ 0°C	3 Wire
Platinum 100 w Single	B
Platinum 100 w Dual	E

## ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

## TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

## SHEATH DIAMETER

N = .375 (3/8")

## REDUCED SHEATH DIAMETER

I = .188 (3/16")

## SHEATH MATERIAL

W = 316 SST

## SHEATH LENGTH ("A")

Whole inches (EX. 04 = 4")

## SHEATH LENGTH (Fractional)

A = None	L = 1/2"
C = 1/8"	N = 5/8"
G = 1/4"	Q = 3/4"
J = 3/8"	S = 7/8"

1 2 3 4 5 - 6 7 8 9 10 - 11 12 13 14  
R L - N I W -

## FEATURES:

- Clean-In-Place Design for Food, Dairy, and Beverage Applications
- 3-A Symbol Council Authorization #74-00
- Fast Response Design
- Superior Stem Strength
- FDA Compliant White Polypropylene Connection Head Standard
- Single or Dual (Redundant Styles)
- Minimum #4 RMS High Polish on complete assembly
- Washdown Resistant Construction
- No Threads Exposed to Collect Bacteria (On Snap-Cover Head)
- Highly Vibration and Shock Resistant Stem and Element

## OPTION

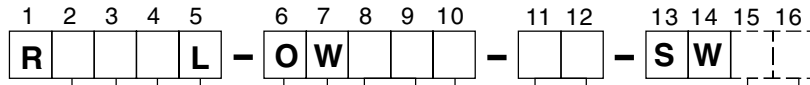
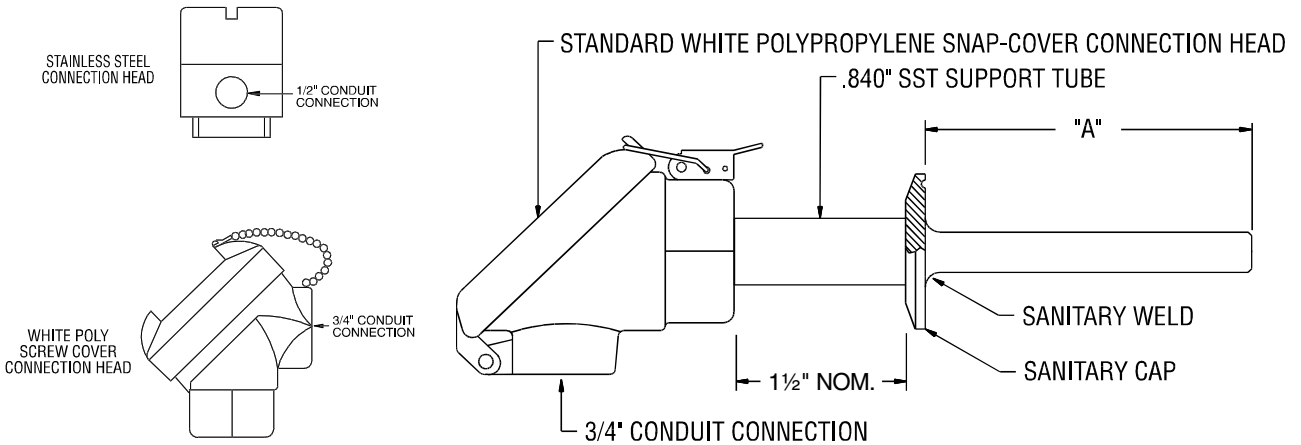
SR = 1/2" NPT SST Conduit Reducer

## SANITARY CAP TYPE & SIZE

Cap type	Size >	1-1/2"	2"	2-1/2"	3"
16 AMP clamp cap		A2	A3	A4	A5
16A bevel seat		B2	B3	B4	B5
16APV APC		C2	C3	C4	C5
16AI-14I I-line		D2	D3	D4	D5
K16A		E2	E3	E4	E5
16AQ-14Q		F2	F3	F4	F5
16A w/#13-H nut		G2	G3	G4	G5
16APC w/#13-H nut		H2	H3	H4	H5
16AH H-line		J2	J3	J4	J5

<sup>1</sup>Consult sales for availability of epoxy coated aluminum connection heads.

# SANITARY CONNECTED THERMOWELL RTD'S



### CONNECTION HEAD TYPE<sup>1</sup>

Code	Description
V	Snap-cover white polypropylene
5	Screw-cover white polypropylene
8	Screw-cover stainless steel

### ELEMENT TYPE

Resistance @ 0°C	3 Wire
Platinum 100 w Single	B
Platinum 100 w Dual	E

### ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

### TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

### SHEATH DIAMETER

O = .500 (1/2")

### SHEATH MATERIAL

W = 316 SST

### SHEATH LENGTH ("A")

Whole inches (EX. 04 = 4")

### SHEATH LENGTH (Fractional)

A = None	L = 1/2"
C = 1/8"	N = 5/8"
G = 1/4"	Q = 3/4"
J = 3/8"	S = 7/8"

### FEATURES:

- Clean-In-Place Design for Food, Dairy, and Beverage Applications
- 3-A Symbol Council Authorization #74-00
- Fast Response Design
- Superior Stem Strength
- FDA Compliant White Polypropylene Connection Head Standard
- Single or Dual (Redundant Styles)
- Minimum #4 RMS High Polish on complete assembly
- Washdown Resistant Construction
- No Threads Exposed to Collect Bacteria (On Snap-Cover Head)
- Highly Vibration and Shock Resistant Stem and Element

### OPTION

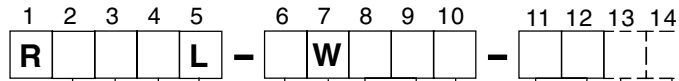
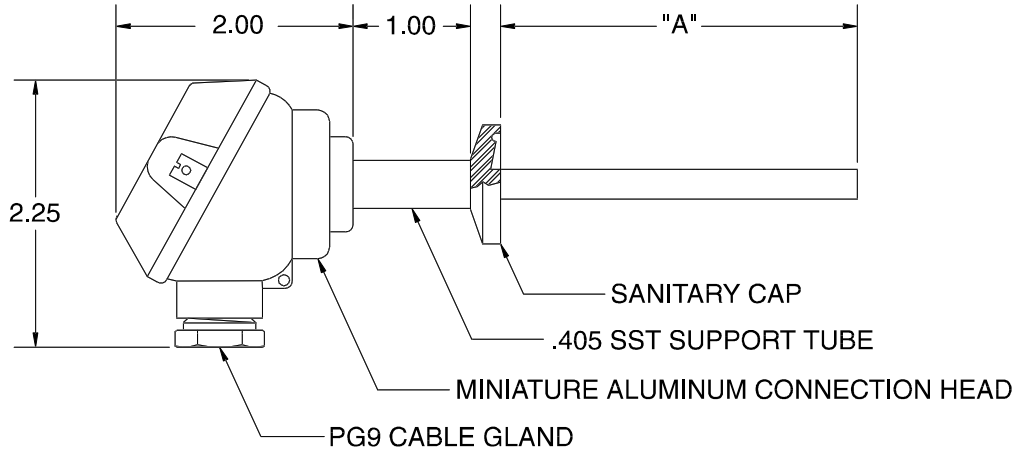
SR = 1/2" NPT SST Conduit Reducer

### SANITARY CAP TYPE & SIZE

Cap type	Size>	1-1/2"	2"	2-1/2"	3"
16 AMP clamp cap	A2	A3	A4	A5	
16A bevel seat	B2	B3	B4	B5	
16APV APC	C2	C3	C4	C5	
16AI-14I I-line	D2	D3	D4	D5	
K16A	E2	E3	E4	E5	
16AQ-14Q	F2	F3	F4	F5	
16A w/#13-H nut	G2	G3	G4	G5	
16APC w/#13-H nut	H2	H3	H4	H5	
16AH H-line	J2	J3	J4	J5	

<sup>1</sup>Consult sales for availability of epoxy coated aluminum connection heads.

# MINIATURE SANITARY CONNECTED RTD's



## CONNECTION HEAD TYPE

Code	Description
V	Snap-cover white polypropylene
X	Miniature Plastic
Y	Miniature Aluminum
5	Screw-cover white polypropylene

## ELEMENT TYPE

Resistance @ 0°C	3 Wire	4 Wire
Platinum 100 w Single	B	C
Platinum 100 w Dual	E	--

## ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

## TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

## SHEATH DIAMETER

H = .156 (5/32")  
K = .250 (1/4")

## SHEATH MATERIAL

W = 316 SST

## SHEATH LENGTH ("A")

Whole inches (EX. 04 = 4")

## FEATURES:

- Clean-In-Place Design for Pharmaceutical, chemical, laboratory, biotech & food process applications
- 3-A Symbol Council Authorization #74-00
- Fast Response Design
- Superior Stem Strength
- Single or Dual (Redundant Styles)
- Minimum #4 RMS High Polish on complete assembly
- Highly Vibration and Shock Resistant Stem and Element

## OPTION

SR = 1/2" NPT SST Conduit Reducer Head Type "V" & "5" only

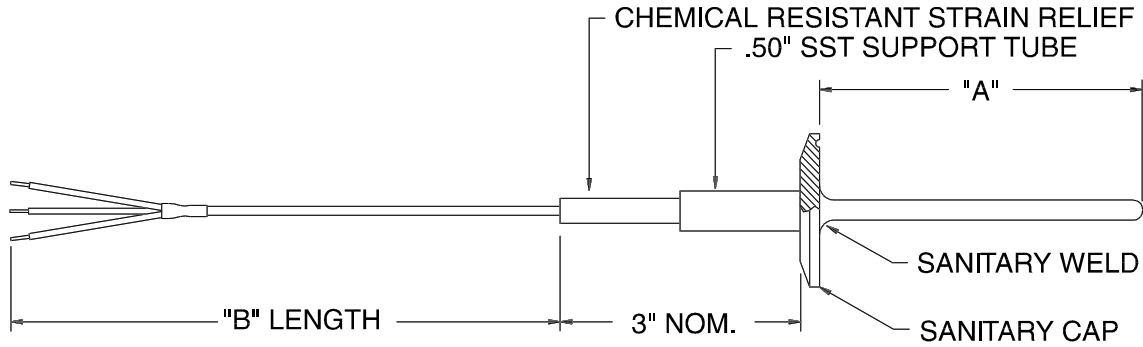
## SANITARY CAP TYPE & SIZE

Type & Size	Code
16 AMP clamp cap, 1/2"	A1
16 AMP clamp cap, 3/4"	A1

## SHEATH LENGTH (Fractional)

A = None	L = 1/2"
C = 1/8"	N = 5/8"
G = 1/4"	Q = 3/4"
J = 3/8"	S = 7/8"

# LEADWIRE STYLE SANITARY CONNECTED RTD's



## TRANSITION TYPE

D = Special epoxy sealed, stainless steel

## ELEMENT TYPE

Resistance @ 0°C	3 Wire	4 Wire
Platinum 100 w Single	B	C
Platinum 100 w Dual	E	--

## ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

## TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

## SHEATH DIAMETER

K = .250 (1/4")

## SHEATH MATERIAL

W = 316 SST

## SHEATH LENGTH ("A")

Whole inches (EX. 04 = 4")

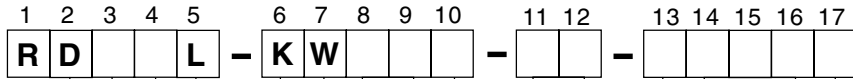
## SHEATH LENGTH (Fractional)

A = None	L = 1/2"
C = 1/8"	N = 5/8"
G = 1/4"	Q = 3/4"
J = 3/8"	S = 7/8"

## SANITARY CAP TYPE & SIZE

Cap type	Size >	1-1/2"	2"	2-1/2"	3"
16 AMP clamp cap		A2	A3	A4	A5
16A bevel seat		B2	B3	B4	B5
16APV APC		C2	C3	C4	C5
16AI-14I I-line		D2	D3	D4	D5

NOTE: For 1/2" & 3/4", 16 AMP clamp cap, specify code A1



## LEADWIRE TERMINATIONS

- A = None
- B = 2-1/2" Split Leads
- C = 2-1/2" Split Leads w/#8 Spade Lugs
- D = 2-1/2" Split Leads w/#8 Spade Lugs & BX Connector
- K = Standard Male Plug (200°C)
- L = Standard Plug with Mating Jack
- M = Standard Female Jack
- Q = Miniature Male Plug
- R = Miniature Plug Mating Jack
- S = Miniature Female Jack

## LEADWIRE LENGTH ("B")

Whole Inches: Example: 048 = 48 "

## LEADWIRE TYPE

- M = Teflon jacketed cable
- 2 = Heavy duty Teflon Cable\*
- 3 = Teflon cable with white Teflon coated flex armor

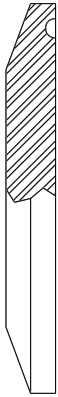
\* Heavy duty Teflon cable consists of Teflon inners and jacket, a stainless steel protective braid and an outer heavy Teflon jacket

## FEATURES:

- Clean-In-Place Design for Food, Dairy, Beverage and Pharmaceutical Applications
- Fast Response Design
- Superior Stem Strength
- Single or Dual (Redundant Styles)
- Minimum #4 RMS High Polish on complete assembly
- Washdown Resistant Construction
- Highly Vibration and Shock Resistant Stem and Element

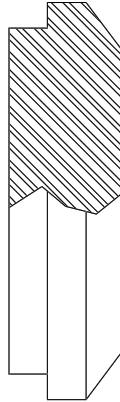
# SANITARY END CAP DIMENSIONS

**STYLE A**  
16 AMP CLAMP CAP



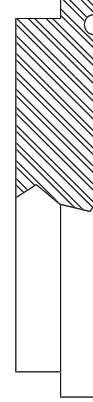
SIZE TUBE O.D.	O.D.	THICKNESS
1/2 or 3/4	1.00	.188
1	1.98	.25
1-1/2	1.98	.25
2	2.51	.25
2-1/2	3.03	.25
3	3.57	.25
4	4.68	.31

**STYLE B**  
16A BEVEL SEAT



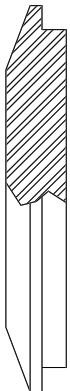
SIZE TUBE O.D.	O.D.	THICKNESS
1	1.31	.46
1-1/2	1.84	.56
2	2.37	.62
2-1/2	2.90	.66
3	3.43	.71
4	4.50	.81

**STYLE C**  
16APV APC



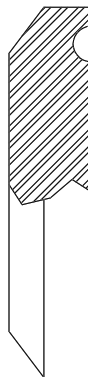
SIZE TUBE O.D.	O.D.	THICKNESS
1	1.38	.29
1-1/2	1.88	.42
2	2.38	.46
2-1/2	2.88	.47
3	3.38	.50
4	4.38	.53

**STYLE D**  
16 Al-14I I-Line



SIZE TUBE O.D.	O.D.	THICKNESS
1	2	.50
1-1/2	2	.50
2	2.65	.56
2-1/2	3.12	.56
3	3.87	.75
4	4.87	.75

**STYLE F**  
16AQ-14Q



SIZE TUBE O.D.	O.D.	THICKNESS
1	1.98	.31
1-1/2	1.98	.31
2	2.64	.43
2-1/2	3.30	.50
3	3.87	.50
4	4.87	.62

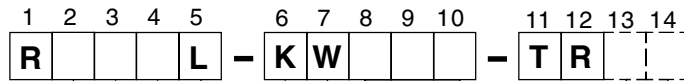
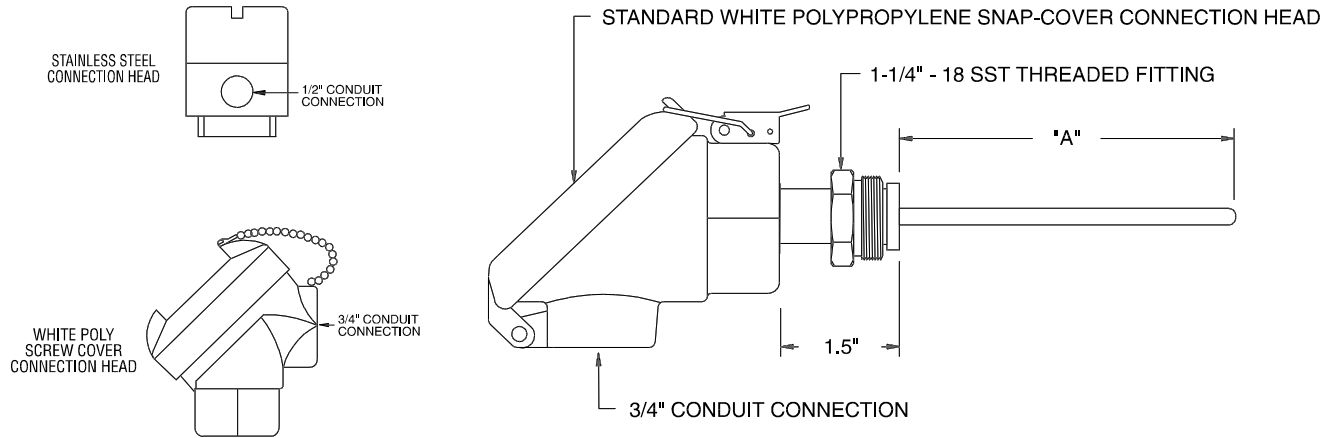
**STYLE J**  
16AH H-LINE



SIZE TUBE O.D.	O.D.	THICKNESS
1	Not Available	
1-1/2	2	.091
2	2.50	.091
2-1/2	3.03	.091
3	3.56	.091
4	4.68	.091



# THERMOMETER REPLACEMENT RTD'S



### CONNECTION HEAD TYPE

Code	Description
V	Snap-cover white polypropylene
5	Screw-cover white polypropylene
8	Screw-cover stainless steel

### ELEMENT TYPE

Resistance @ 0°C	3 Wire
Platinum 100 w Single	B
Platinum 100 w Dual	E

### ACCURACY & TEMPERATURE COEFFICIENT

Resistance @ 0°C	DIN .00385	JIS .00392
CLASS B (.12%)	G	H
CLASS A (.06%)	J	K
1/3RD (.04%)	M	N

### TEMPERATURE RANGE

L = -50 TO +200°C (-58 TO +392°F)

### SHEATH DIAMETER

K = .250 (1/4")

### SHEATH MATERIAL

W = 316 SST

### SHEATH LENGTH CODE

Code	Sheath Length	Fits well number:	
		Taylor	Anderson
09L	9-1/2", spring relaxed	26P397	1247
11G	11-1/4", spring relaxed	SK10274	1279
12L	12-1/2", spring relaxed	S6P398	1280

### OPTION

SR = 1/2" NPT SST Conduit Reducer

### FEATURES:

- Fast Response Design
- FDA Compliant White Polypropylene Connection Head Standard
- Single or Dual (Redundant Styles)
- Washdown Resistant Construction
- Highly Vibration and Shock Resistant Stem and Element
- Replaceable Spring Loaded Element

NOTE: Consult sales for other sheath length codes

# PENETRATION STYLE RTD SENSORS

## PROBE STYLE

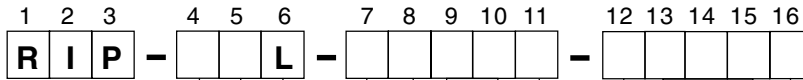
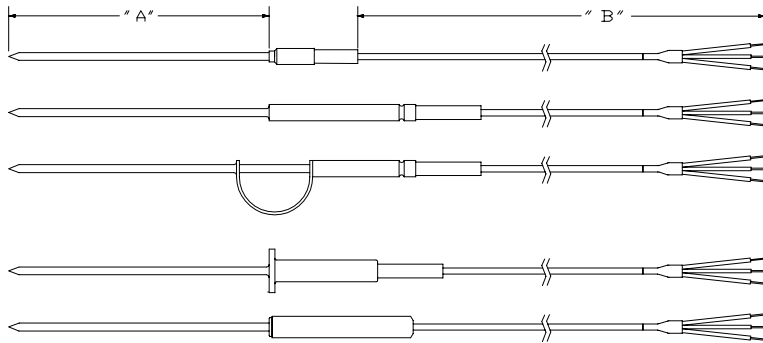
1. Transition Fitting

2. Straight Handle

3. Saber Handle

4. Flanged Handle

6 & 7. Euro Style Handle  
(Teflon or Stainless Steel)



## ELEMENT TYPE

Resistance @ 0°C	2 Wire	3 Wire
Platinum 100w Single	A	B
Platinum 1000w Single	K	L

## ACCURACY & TEMPERATURE COEFFICIENT

Accuracy @ 0°C	Din.00385	Jis.00392
Class B (.12%)	G	H
Class A (.06%)	J	K
1/3 RD (.04%)	M	N

## TEMPERATURE RANGE

-50 to +200° C L

## PROBE STYLE

- 1 = Standard transition fitting - Stainless Steel
- 2 = Straight handle - Stainless Steel
- 3 = Saber handle - Stainless Steel
- 4 = Flanged handle - Stainless Steel
- 6 = Euro Style - White Teflon
- 7 = Euro Style - Stainless Steel

## SHEATH DIAMETER (Inch)

- B = .134 OD 304 SST hypodermic Material
- C = .180 OD 304 SST hypodermic Material

## SHEATH LENGTH ("A")

Whole Inches: Example 00 = None

NOTE: Maximum 12" sheath length

## SHEATH LENGTH ("A" Fractional)

A = None	G = 1/4	N = 5/8
B = 1/16	J = 3/8	Q = 3/4
C = 1/8	L = 1/2	S = 7/8
E = 3/16		

## LEADWIRE TERMINATIONS

- A = None
- B = 2-1/2" Split Leads
- C = 2-1/2" Split Leads w/#8 Spade Lugs
- D = 2-1/2" Split Leads w/#8 Spade Lugs & BX Connector
- K = Standard Male Plug (200°C)
- L = Standard Plug with Mating Jack
- M = Standard Female Jack
- Q = Miniature Male Plug
- R = Miniature Plug Mating Jack
- S = Miniature Female Jack

## LEADWIRE LENGTH ("B")

Whole Inches: Example: 048 = 48 Inches

## LEADWIRE TYPE

- M = Teflon jacketed cable
- 2 = Heavy duty Teflon Cable\*
- 3 = Teflon cable with white Teflon coated flex armor

\* Heavy duty Teflon cable consists of Teflon inners and jacket, a stainless steel protective braid and an outer heavy Teflon jacket

## PRODUCT FEATURES

- Extra sharp pointed closure
- **All FDA compliant materials**
- Specifically designed for food & smokehouse use
- Special chemical resistant epoxy resists sodium hydroxide washdown
- Element designed to resist physical & thermal shock
- Complete sensor rated to +200°C

# PENETRATION STYLE THERMOCOUPLE SENSORS

## PROBE STYLE

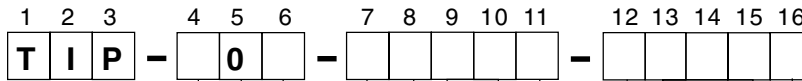
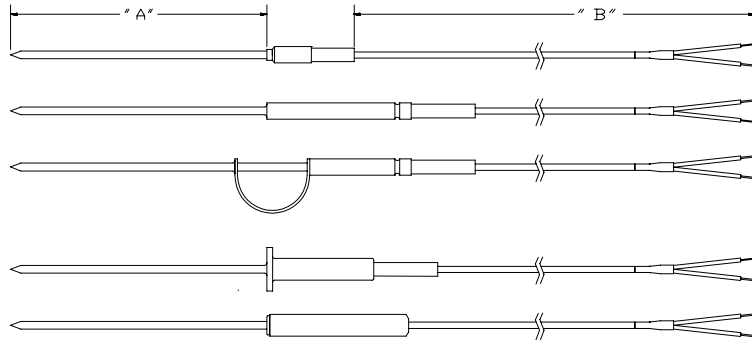
1. Transition Fitting

2. Straight Handle

3. Saber Handle

4. Flanged Handle

6 & 7. Euro Style Handle  
(Teflon or Stainless Steel)



## CALIBRATION

J = Type "J"  
T = Type "T"

## SINGLE ELEMENT

0 = Single

## JUNCTION TYPE

G = Grounded  
U = Ungrounded

## PROBE STYLE

1 = Standard transition fitting - Stainless Steel  
2 = Straight handle - Stainless Steel  
3 = Saber handle - Stainless Steel  
4 = Flanged handle - Stainless Steel  
6 = Euro Style - White Teflon  
7 = Euro Style - Stainless Steel

## SHEATH DIAMETER (Inch)

B = .134 OD 304 SST hypodermic Material  
C = .180 OD 304 SST hypodermic Material

## SHEATH LENGTH ("A")

Whole Inches: Example 00 = None

NOTE: Maximum 12" sheath length

## SHEATH LENGTH ("A" Fractional)

A = None    G = 1/4    N = 5/8  
B = 1/16    J = 3/8    Q = 3/4  
C = 1/8    L = 1/2    S = 7/8  
E = 3/16

## LEADWIRE TERMINATIONS

A = None  
B = 2-1/2" Split Leads  
C = 2-1/2" Split Leads w/#8 Spade Lugs  
D = 2-1/2" Split Leads w/#8 Spade Lugs & BX Connector  
K = Standard Male Plug (200°C)  
L = Standard Plug with Mating Jack  
M = Standard Female Jack  
Q = Miniature Male Plug  
R = Miniature Plug Mating Jack  
S = Miniature Female Jack

## LEADWIRE LENGTH ("B")

Whole Inches: Example: 048 = 48 Inches

## LEADWIRE TYPE

M = Teflon jacketed cable  
2 = Heavy duty Teflon Cable\*  
3 = Teflon cable with white Teflon coated flex armor

\* Heavy duty Teflon cable consists of Teflon inners and jacket, a stainless steel protective braid and an outer heavy Teflon jacket

## PRODUCT FEATURES

- Extra sharp pointed closure
- **All FDA compliant materials**
- Specifically designed for food & smokehouse use
- Special chemical resistant epoxy resists sodium hydroxide washdown
- Element designed to resist physical & thermal shock
- Complete sensor rated to +200°C

