ProSense® Thermowells

Overview

- Thermowells designed for use with ProSense thermocouple and RTD probes or ProSense Thermometers elminate the need for a separate probe mounting fitting or adapter

TW Series Thermowells

- Drilled bar stock one piece construction (no welds) from 304 or 316 stainless steel
- 1/2" and 3/4" NPT male process threads available
- Designs and fabrication comply with ASME B31.1 and boiler and pressure vessel codes
- Material complies with NACE MR 0175 / ISO 15156
- CRN registered for all Canadian provinces
- 1-year warranty

RTDTW Series Thermowells

- Welded 316 stainless steel construction
- 1/2" NPT male process threads
- 3-year warranty

Thermowells for Thermocouples -TW Series

Part Number	Pcs/ Pkg	Wt(lb)	Price	I.D.	Overall Length/"U" Length	Male Process Threads	Female Probe Threads	Wetted Material	Temperature/ Pressure Rating	Use With Probe or Thermometer
TW025-01	1	0.4	$31.00	0.26"	2-3/4" / 1"	1/2" NPT	1/2" NPT	304 SS	304SS: 1000°F max; 3400psi max 316SS: 1000°F max; 5200psi max	See Sensor Compatibility Table
TW025-03	1	0.4	$36.00			1/2" NPT		316 SS		
TW04-01	1	0.5	$36.00		4-1/4" / 2-1/2"	1/2" NPT		304 SS		
TW04-02	1	0.5	$36.00			3/4" NPT		304 SS		
TW04-03	1	0.5	$45.00			1/2" NPT		316 SS		
TW04-04	1	0.5	$45.00			3/4" NPT		316 SS		
TW06-01	1	0.7	$49.50		6-1/4" / 4-1/2"	1/2" NPT		304 SS		
TW06-02	1	0.7	$49.50			3/4" NPT		304 SS		
TW06-03	1	0.7	$57.00			1/2" NPT		316 SS		
TW06-04	1	0.7	$57.00			3/4" NPT		316 SS		
TW09-01	1	1.0	$71.00		9-1/4" / 7-1/2"	1/2" NPT		304 SS		
TW09-03	1	1.0	$82.00			1/2" NPT		316 SS		
TW12-01	1	1.2	$80.00		12-1/4" / 10-1/2"	1/2" NPT		304 SS		
TW12-02	1	1.2	$80.00			3/4" NPT		304 SS		
TW12-03	1	1.2	$98.00			1/2" NPT		316 SS		
TW12-04	1	1.2	$98.00			3/4" NPT		316 SS		

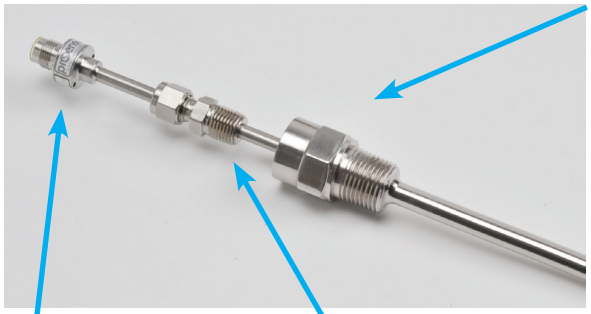
ProSense® Thermowells

Thermowells for Thermocouples -RTDTW Series										
Part Number	*Pcs/ Pkg*	*Wt(lb)*	*Price*	*I.D.*	*Overall Length*	*Male Process Threads*	*Female Probe Threads*	*Wetted Material*	*Temperature/ Pressure Rating*	*Use With*
RTDTW-06-010-50N	1	0.10	$43.00	7 mm (0.28")	113mm (4.4")	1/2" NPT	1/4" NPT	316 SS	600°F (315°C) max; 232 psi (16 bar) max	XTP-160-N40140F XTP-160-0300F XTP-160-0100C RTD0100-06-010-H CF06-25N fitting
RTDTW-06-020-50N	1	0.20	$46.00		213mm (8.4")					XTP-260-N40140F XTP-260-0300F XTP-260-0100C RTD0100-06-020-H CF06-25N fitting
RTDTW-06-030-50N	1	0.30	$51.00		313mm (12.3")					XTP-360-N40140F XTP-360-0300F XTP-360-0100C RTD0100-06-030-H CF06-25N fitting
RTDTW-10-010-50N	1	0.10	$43.00	11 mm (0.43")	92mm (3.62")		1/2" NPT			RTD0100-10-010-H CF10-50N fitting
RTDTW-10-030-50N	1	0.22	Retired		292mm (11.48")					CF10-50N fitting

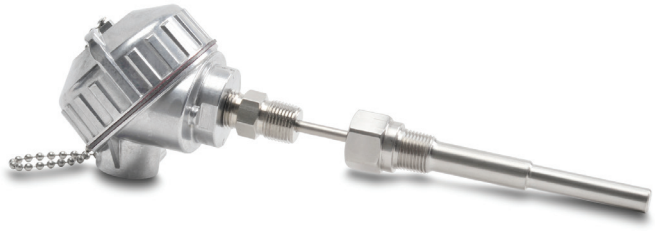
Note: Check the chemical compatibility of the thermowell's wetted parts with the medium to be measured.

Note: Response time will be slower when installed in a thermowell. Be sure to install the probe so that it contacts the end of the thermowell for faster response. Thermal compound may be used depending on application

Probe & Thermowell Assembly Example



Spring-loaded Thermocouple or RTD and Thermowell Assembly Example



- *Using spring-loaded probe design ensures positive tip contact with the bottom of the thermowell.*
- *Probes with hex nipple thread directly into thermowell. No additional probe mounting fittings are required.*

ProSense® Thermowells

Dimensions

inches [mm]

TW04-XX & TW025-XX

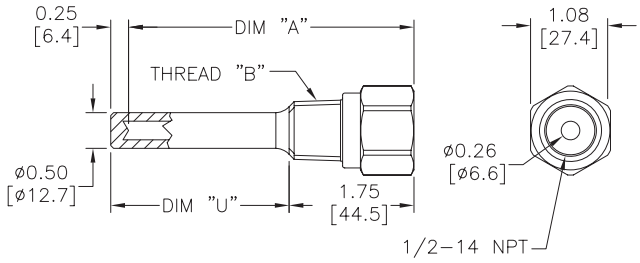


TABLE A			
PART NUMBER	DIM "A'	THREAD "B' NPT	DIM "U'
TW025–01	2.50[63.5]	1/2–14	1.00[25.5]
TW025–03	2.50[63.5]	1/2–14	
TW04–01	4.00[101.6]	1/2–14	2.50[63.5]
TW04–02	4.00[101.6]	3/4–14	
TW04–03	4.00[101.6]	1/2–14	
TW04–04	4.00[101.6]	3/4–14	

Dimensions

inches [mm]

TW06-XX
TW09-XX
TW12-XX

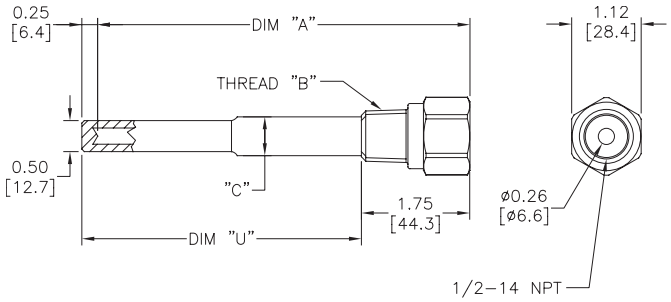


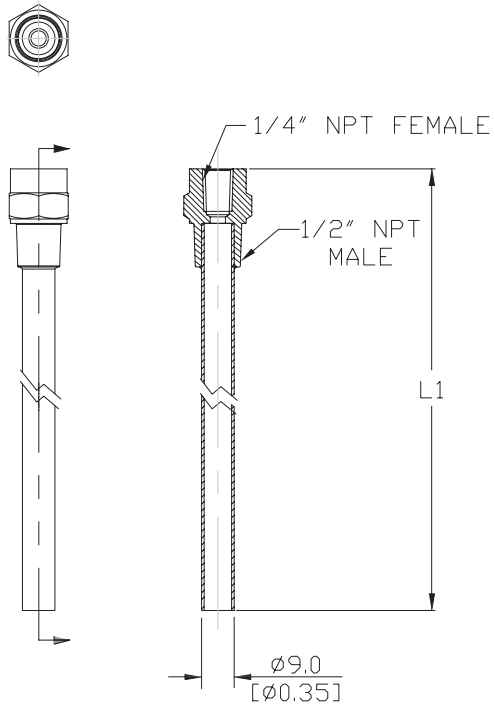
TABLE A				
PART NUMBER	DIM "A"	THREAD "B" NPT	DIM "C"	DIM "U"
TW06–01	6.00[152.4]	1/2–14	0.63[15.9]	4.50[14.3]
TW06–02	6.00[152.4]	3/4–14	0.75[19.1]	
TW06–03	6.00[152.4]	1/2–14	0.63[15.9]	
TW06–04	6.00[152.4]	3/4–14	0.75[19.1]	
TW09–01	9.00[228.6]	1/2–14	0.63[15.9]	7.50[190.5]
TW09–03	9.00[228.6]	1/2–14	0.63[15.9]	
TW12–01	12.00[304.8]	1/2–14	0.63[15.9]	10.50[266.7]
TW12–02	12.00[304.8]	3/4–14	0.75[19.1]	
TW12–03	12.00[304.8]	1/2–14	0.63[15.9]	
TW12–04	12.00[304.8]	3/4–14	0.75[19.1]	

ProSense® Thermowells

Dimensions

mm [inches]

RTDTW-06 Series

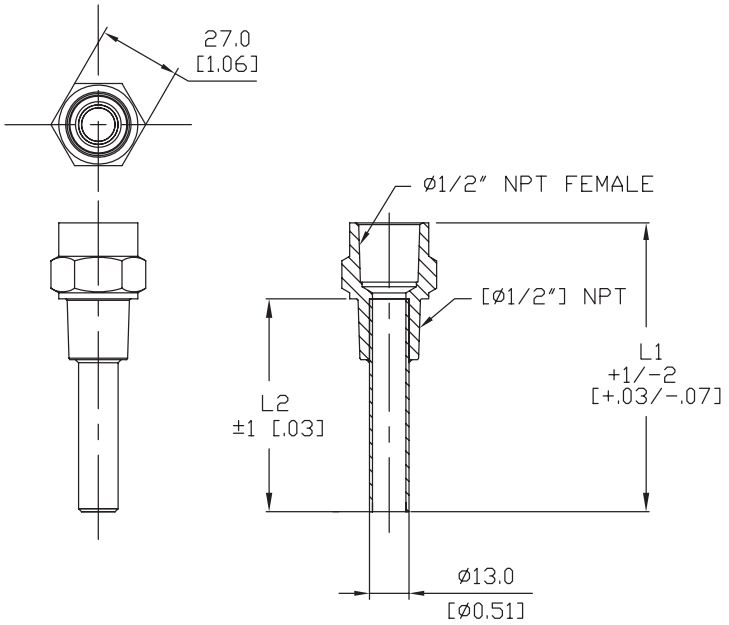


Part Number	L1
RTDTW-06-010-50N	113mm [4.4]
RTDTW-06-020-50N	213mm [8.4]
RTDTW-06-030-50N	313mm [12.3]

Torque threads to 40 lb-ft [54.23 Nm]*

**** Torque values are for reference. Actual torque required for a proper seal of NPT threads is influenced by tolerance, sealant, lubricant, etc.***

RTDTW-10 Series



Part Number	L1	L2
RTDTW-10-030-50N	92mm [3.62]	70mm [2.75]
RTDTW-10-050-50N	292mm [11.48]	270mm [10.6]

Torque threads to 40 lb-ft [54.23 Nm]*

ProSense® Thermowells

TW Series Thermowells Sensor Compatibility Table							
	Junction Box	***Connection Head***	***Hex Nipple***	***Attached Plug***	***Lead Wire Transition***	***M12***	***Thermometer***
Thermowell							
TW025-01 ***TW025-03***	–	–	–	–	–	–	T30-N40160-25C T30-0250-25C T30-50500-25C T30-150750-25C T50-N40160-25A T50-0250-25A T50-50500-25A T50-150750-25A
TW04-01 ***TW04-02*** ***TW04-03*** ***TW04-04***	NTC10K3-JB04-03	RTD1-C04-03 THMJ-C04-03 THMK-C04-03 NTC10K3-C04-03	RTD1-H04L01-02 THMJ-H04L01-02 THMK-H04L01-02 NTC10K3-H04L01-02	RTD1-P06-01 w/ CF14-50N THMJ-P06-02 w/ CF14-50N THMK-P06-02 w/ CF14-50N NTC10K3-P06-02 w/ CF14-50N	RTD1-T06L06-01 w/ CF14-50N THMJ-T06L06-02 w/ CF14-50N THMK-T06L06-02 w/ CF14-50N NTC10K3-T06L06-02 w/CF14-50N	RTD1-50N-100-H RTD0100-06-010-H w/CF14-50N XTP-160-N40140F w/CF14-50N XTP-160-0300F w/CF14-50N XTP-160-0100C w/CF14-50N XTP50N-100-N40140F XTP50N-100-0300F XTP50N-100-0100C ETS50N-100-1001 ETS50N-100-1003	T30-N40160-4C T30-0250-4C T30-50500-4C T30-150750-4C T50-N40160-4A T50-0250-4A T50-50500-4A T50-150750-4A
TW06-01 ***TW06-02*** ***TW06-03*** ***TW06-04***	NTC10K3-JB06-03	RTD1-C06-03 THMJ-C06-03 THMK-C06-03 NTC10K3-C06-03	RTD1-H06L01-02 THMJ-H06L01-02 THMK-H06L01-02 NTC10K3-H06L01-02	RTD1-P12-01 w/ CF14-50N THMJ-P12-02 w/ CF14-50N THMK-P12-02 w/ CF14-50N NTC10K3-P12-02 w/ CF14-50N	RTD1-T12L06-01 w/ CF14-50N THMJ-T12L06-02 w/ CF14-50N THMK-T12L06-02 w/ CF14-50N NTC10K3-T12L06-02 w/CF14-50N	RTD1-50N-150-H RTD0100-06-020-H w/CF14-50N XTP-260-N40140F w/CF14-50N XTP-260-0300F w/CF14-50N XTP-260-0100C wCF14-50N XTP50N-150-N40140F XTP50N-150-0300F XTP50N-150-0100C ETS50N-150-1001 ETS50N-150-1003	T30-N40160-6C T30-0250-6C T30-50500-6C T30-150750-6C T50-N40160-6A T50-0250-6A T50-50500-6A T50-150750-6A
TW09-01 ***TW09-03***	–	–	–	–	–	–	T50-N40160-9A T50-0250-9A T50-50500-9A T50-150750-9A
TW12-01 ***TW12-02*** ***TW12-03*** ***TW12-04***	NTC10K3-JB12-03	RTD1-C12-03 THMJ-C12-03 THMK-C12-03 NTC10K3-C12-03	RTD1-H12L01-02 THMJ-H12L01-02 THMK-H12L01-02 NTC10K3-H12L01-02	RTD1-P18-01 w/ CF14-50N THMJ-P18-02 w/ CF14-50N THMK-P18-02 w/ CF14-50N NTC10K3-P18-02 w/ CF14-50N	RTD1-T18L06-01 w/ CF14-50N THMJ-T18L06-02 w/ CF14-50N THMK-T18L06-02 w/ CF14-50N NTC10K3-T18L06-02 w/CF14-50N	RTD0100-06-030-H w/CF14-50N XTP-360-N40140F w/CF14-50N XTP-360-0300F w/CF14-50N XTP-360-0100C w/CF14-50N	–

Note: Response time will be slower when installed in a thermowell. Be sure to install the probe so that it contacts the end of the thermowell for faster response. Thermal compound may be used depending on application.

ProSense® Thermowells Sanitary Clean-in-Place (CIP)

STW06-01

Overview

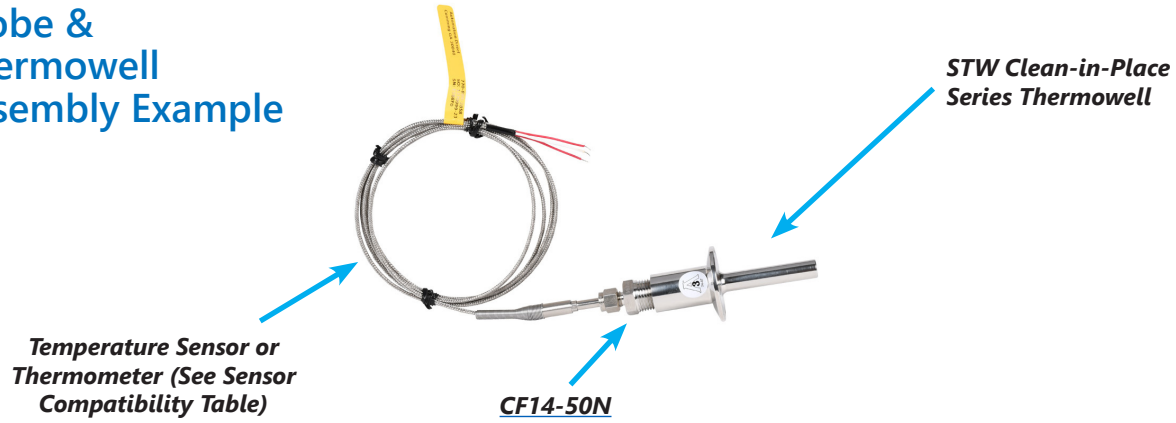
- Sanitary Clean-In-Place 3-A approved thermowells allow the use of standard temperature sensors in hygienic applications
- All wetted parts are 316 stainless steel
- Surface finish that meets or exceeds 32µin Ra
- Up to 1500/1200 psi (103/83 bar) at 70/250 °F (21/121 °C) dependent on clamp and seal assembly.
- Bore diameter of 0.260" to accommodate sensing probes with a 0.252" maximum diameter
- Probes with integral 1/2" male NPT process threads mount directly into the thermowell. Probes without threads require a compression fitting with 1/2" male NPT threads.

Thermowells Sanitary Clean-in-Place (CIP)									
Part Number	*Pcs/Pkg*	*Wt(lb)*	*Price*	*I.D.*	*Overall Length/"U" Length*	*Process Connection*	*Female Probe Threads*	*Wetted Material*	*Use With*
STW04-01	1	0.75	$106.00	ø0.260	4-1/4" / 2-1/2"	1-1/2" tri-clamp	1/2" NPT	316 stainless steel	See Sensor Compatibility Table
STW06-01	1	0.88	$114.00		6-1/4" / 4-1/2"				
STW12-01	1	1.13	$159.00		12-1/4" / 10-1/2"				
STW04-02	1	0.75	$118.00		4-1/4" / 2-1/2"	2" tri-clamp			
STW06-02	1	0.88	$127.00		6-1/4" / 4-1/2"				
STW12-02	1	1.13	$164.00		12-1/4" / 10-1/2"				

Note: Check the chemical compatibility of the thermowell's wetted parts with the medium to be measured.

Note: Response time will be slower when installed in a thermowell. Be sure to install the probe so that it contacts the end of the thermowell for faster response. Thermal compound may be used depending on application

Probe & Thermowell Assembly Example



ProSense® Thermowells Sanitary Clean-in-Place (CIP)

Spring-loaded Thermocouple or RTD and Thermowell Assembly Example

- *Using spring-loaded probe design ensures positive tip contact with the bottom of the thermowell.*
- *Probes with hex nipple thread directly into thermowell. No additional probe mounting fittings are required.*

Dimensions

inches [mm]

STWXX-XX

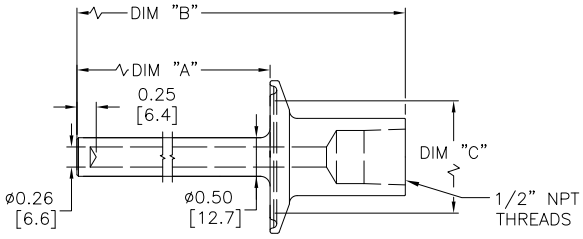


TABLE A			
PART NUMBER	DIM "A"	DIM "B"	DIM "C"
STW04–01	2.50[63.5]	4.25[108.0]	1.50[38.1]
STW06–01	4.50[114.3]	6.25[158.8]	1.50[38.1]
STW12–01	10.50[266.8]	12.25[311.3]	1.50[38.1]
STW04–02	2.50[63.5]	4.25[108.0]	2.00[50.8]
STW06–02	4.50[114.3]	6.25[158.5]	2.00[50.8]
STW12–02	10.50[266.8]	12.25[311.3]	2.00[50.8]

ProSense® Thermowells Sanitary Clean-in-Place (CIP)

Thermowells Sanitary Clean-in-Place (CIP) Sensors Compatibility Table

Thermowell	Junction Box	Connection Head Sensor	Hex Nipple Sensor	Attached Plug Sensor	Lead Wire Transition Sensor	M12 Sensor	Thermometer
STW04-01	NTC10K3-JB04-03	RTD1-C04-03 THMJ-C04-03 THMK-C04-03 NTC10K3-C04-03	RTD1-H04L01-02 THMJ-H04L01-02 THMK-H04L01-02 NTC10K3-H04L01-02	RTD1-P06-01 w/ CF14-50N THMJ-P06-02 w/ CF14-50N THMK-P06-02 w/ CF14-50N NTC10K3-P06-02 w/ CF14-50N	RTD1-T06L06-01 w/ CF14-50N THMJ-T06L06-02 w/ CF14-50N THMK-T06L06-02 w/ CF14-50N	RTD1-50N-100-H RTD0100-06-010-H w/CF14-50N XTP-160-N40140F w/CF14-50N XTP-160-0300F w/CF14-50N XTP-160-0100C w/CF14-50N XTP50N-100-N40140F XTP50N-100-0300F XTP50N-100-0100C ETS50N-100-1001 ETS50N-100-1003	T30-N40160-4C T30-0250-4C T30-50500-4C T30-150750-4C T50-N40160-4A T50-0250-4A T50-50500-4A T50-150750-4A
STW06-01	NTC10K3-JB06-03	RTD1-C06-03 THMJ-C06-03 THMK-C06-03 NTC10K3-C06-03	RTD1-H06L01-02 THMJ-H06L01-02 THMK-H06L01-02 NTC10K3-H06L01-02	RTD1-P12-01 w/ CF14-50N THMJ-P12-02 w/ CF14-50N THMK-P12-02 w/ CF14-50N NTC10K3-P12-02 w/ CF14-50N	RTD1-T12L06-01 w/ CF14-50N THMJ-T12L06-02 w/ CF14-50N THMK-T12L06-02 w/ CF14-50N	RTD1-50N-150-H RTD0100-06-020-H w/CF14-50N XTP-260-N40140F w/CF14-50N XTP-260-0300F w/CF14-50N XTP-260-0100C wCF14-50N XTP50N-150-N40140F XTP50N-150-0300F XTP50N-150-0100C ETS50N-150-1001 ETS50N-150-1003	T30-N40160-6C T30-0250-6C T30-50500-6C T30-150750-6C T50-N40160-6A T50-0250-6A T50-50500-6A T50-150750-6A
STW12-01	NTC10K3-JB12-03	RTD1-C12-03 THMJ-C12-03 THMK-C12-03 NTC10K3-C12-03	RTD1-H12L01-02 THMJ-H12L01-02 THMK-H12L01-02 NTC10K3-H12L01-02	RTD1-P18-01 w/ CF14-50N THMJ-P18-02 w/ CF14-50N THMK-P18-02 w/ CF14-50N NTC10K3-P18-02 w/ CF14-50N	RTD1-T18L06-01 w/ CF14-50N THMJ-T18L06-02 w/ CF14-50N THMK-T18L06-02 w/ CF14-50N	RTD0100-06-030-H w/CF14-50N XTP-360-N40140F w/CF14-50N XTP-360-0300F w/CF14-50N XTP-360-0100C w/CF14-50N	–
STW04-02	NTC10K3-JB04-03	RTD1-C04-03 THMJ-C04-03 THMK-C04-03 NTC10K3-C04-03	RTD1-H04L01-02 THMJ-H04L01-02 THMK-H04L01-02 NTC10K3-H04L01-02	RTD1-P06-01 w/ CF14-50N THMJ-P06-02 w/ CF14-50N THMK-P06-02 w/ CF14-50N NTC10K3-P06-02 w/ CF14-50N	RTD1-T06L06-01 w/ CF14-50N THMJ-T06L06-02 w/ CF14-50N THMK-T06L06-02 w/ CF14-50N	RTD1-50N-100-H RTD0100-06-010-H w/CF14-50N XTP-160-N40140F w/CF14-50N XTP-160-0300F w/CF14-50N XTP-160-0100C w/CF14-50N XTP50N-100-N40140F XTP50N-100-0300F XTP50N-100-0100C ETS50N-100-1001 ETS50N-100-1003	T30-N40160-4C T30-0250-4C T30-50500-4C T30-150750-4C T50-N40160-4A T50-0250-4A T50-50500-4A T50-150750-4A
STW06-02	NTC10K3-JB06-03	RTD1-C06-03 THMJ-C06-03 THMK-C06-03 NTC10K3-C06-03	RTD1-H06L01-02 THMJ-H06L01-02 THMK-H06L01-02 NTC10K3-H06L01-02	RTD1-P12-01 w/ CF14-50N THMJ-P12-02 w/ CF14-50N THMK-P12-02 w/ CF14-50N NTC10K3-P12-02 w/ CF14-50N	RTD1-T12L06-01 w/ CF14-50N THMJ-T12L06-02 w/ CF14-50N THMK-T12L06-02 w/ CF14-50N	RTD1-50N-150-H RTD0100-06-020-H w/CF14-50N XTP-260-N40140F w/CF14-50N XTP-260-0300F w/CF14-50N XTP-260-0100C wCF14-50N XTP50N-150-N40140F XTP50N-150-0300F XTP50N-150-0100C ETS50N-150-1001 ETS50N-150-1003	T30-N40160-6C T30-0250-6C T30-50500-6C T30-150750-6C T50-N40160-6A T50-0250-6A T50-50500-6A T50-150750-6A
STW12-02	NTC10K3-JB12-03	RTD1-C12-03 THMJ-C12-03 THMK-C12-03 NTC10K3-C12-03	RTD1-H12L01-02 THMJ-H12L01-02 THMK-H12L01-02 NTC10K3-H12L01-02	RTD1-P18-01 w/ CF14-50N THMJ-P18-02 w/ CF14-50N THMK-P18-02 w/ CF14-50N NTC10K3-P18-02 w/ CF14-50N	RTD1-T18L06-01 w/ CF14-50N THMJ-T18L06-02 w/ CF14-50N THMK-T18L06-02 w/ CF14-50N	RTD0100-06-030-H w/CF14-50N XTP-360-N40140F w/CF14-50N XTP-360-0300F w/CF14-50N XTP-360-0100C w/CF14-50N	–

Note: Response time will be slower when installed in a thermowell. Be sure to install the probe so that it contacts the end of the thermowell for faster response. Thermal compound may be used depending on application.