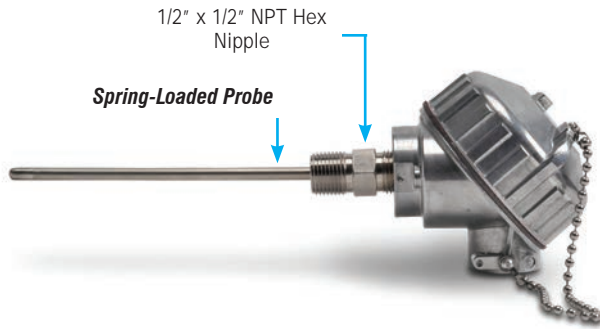


pro^{ense}® Thermocouple Spring-Loaded Probes with Connection Head

THMJ & K - CXX-03



THMJ & K - CXXR-03
Replacement Probe



Overview

- Probe
 - Spring-loaded for positive tip contact in thermowells
 - Type J or K thermocouple elements to meet many temperature sensing applications
 - 1/4" diameter, 316 SS sheath to protect against harsh environments
 - Magnesium Oxide (MgO) insulation provides vibration dampening and protection against thermal shock
 - 4", 6" or 12" probe length
- Connection Head
 - Cast aluminum NEMA 4X, IP66 screw cover head with captive gasket
 - One turn cover removal & installation eliminates cross threading and saves time
 - 3/4 NPT conduit opening with internal stop to prevent overtightening and installation damage
 - Gripping ribs on cover edge
 - Stainless steel cover chain
- Wiring
 - Ceramic terminal base
 - Brass terminals with stainless steel screws eliminate the need to wrap connections around screws
 - Elevated terminal block for easy wire termination
- Made in the USA

Thermocouple Spring-Loaded Probes with Connection Head - Types J and K								
Part Number	Pcs/Pkg	Wt (lb)	Price	Type	Probe Diameter (O.D.)	Probe Length	Temperature Sensing Range	Mounting
THMJ-C04-03	1	1.3		J	1/4"	4"	0 to 720°C (32 to 1330°F)	Integral 1/2" x 1/2" NPT Hex Nipple, 316 SS, Mount in thermowell (see accessories, purchased separately)
THMJ-C06-03			J	6"				
THMJ-C12-03			J	12"				
THMK-C04-03			K	4"		0 to 927°C (32 to 1700°F)		
THMK-C06-03			K	6"				
THMK-C12-03			K	12"				

Thermocouple Spring-Loaded Replacement Probes - Types J and K								
Part Number	Pcs/Pkg	Wt (lb)	Price	Type	Probe Diameter (O.D.)	Fits Probe Length	Temperature Sensing Range	For Use With
THMJ-C04R-03	1	0.2		J	1/4"	4"	0 to 720°C (32 to 1330°F)	THMJ-C04-03
THMJ-C06R-03			J	6"		THMJ-C06-03		
THMJ-C12R-03			J	12"		THMJ-C12-03		
THMK-C04R-03			K	4"		0 to 927°C (32 to 1700°F)	THMK-C04-03	
THMK-C06R-03			K	6"			THMK-C06-03	
THMK-C12R-03			K	12"			THMK-C12-03	

proSense® Thermocouple Spring-Loaded Probes with Connection Head

Technical Specifications	
Junction Type	Ungrounded
ASTM E230 Standard Limits of Error	±2.2°C (±4.0°F) or 0.75%, whichever is greater
Probe	ø1/4", 316 stainless steel sheath, single thermocouple element is embedded in MgO powder
Connection Head	Die-cast aluminum, screw cover with stainless steel chain, compressed graphite gasket, NEMA 4X, IP66, 3/4" NPT conduit opening, max temp. 400°F (204°C)
Response Time	2.9 seconds, 63.2% of a 25-77°C step change per method ASTM E839
Wiring	Connection head: Ceramic terminal base with brass terminals and stainless steel screws (Recommended tightening torque 3-4 lb-in) Replacement Probes: 3 inch stranded 24 AWG wire leads

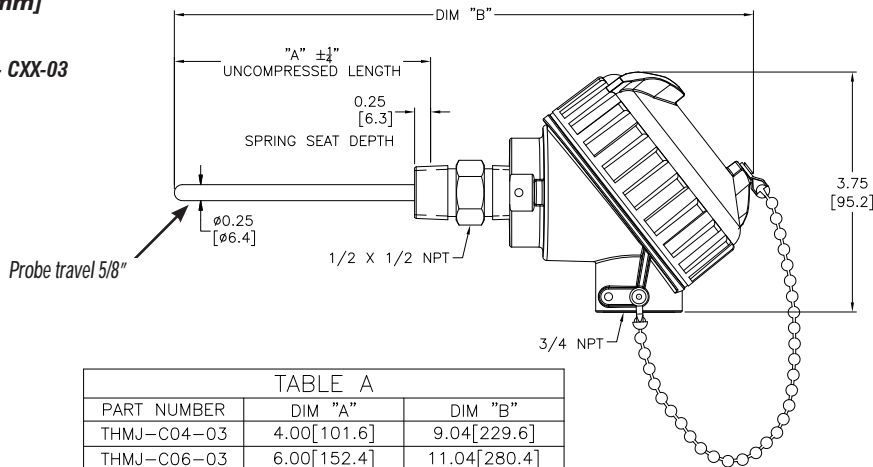


NOTE: CHECK THE CHEMICAL COMPATIBILITY OF THE SENSOR'S WETTED PARTS WITH THE MEDIUM TO BE MEASURED.

Dimensions

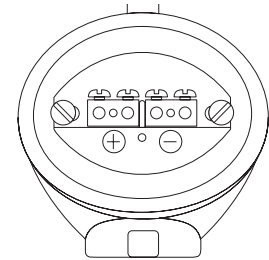
inches [mm]

THMJ & K - CXX-03



PART NUMBER	DIM "A"	DIM "B"
THMJ-C04-03	4.00[101.6]	9.04[229.6]
THMJ-C06-03	6.00[152.4]	11.04[280.4]
THMJ-C12-03	12.00[304.8]	17.04[432.8]
THMK-C04-03	4.00[101.6]	9.04[229.6]
THMK-C06-03	6.00[152.4]	11.04[280.4]
THMK-C12-03	12.00[304.8]	17.04[432.8]

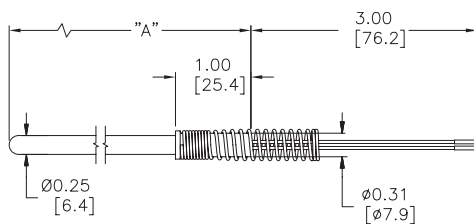
Wiring Information



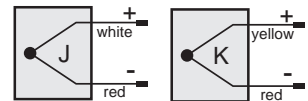
Type J: (+) white (-) red
Type K: (+) yellow (-) red

- Must use thermocouple extension lead wire
- Observe polarity when making connections
- Do not use standard wire nuts
- Recommended screw terminal tightening torque 3-4 lb-in

THMJ & K - CXXR-03
(Replacement Probes)



PART NUMBER	DIM "A"
THMJ-C04R-03	5.00[127.0]
THMJ-C06R-03	7.00[177.8]
THMJ-C12R-03	13.00[330.2]
THMK-C04R-03	5.00[127.0]
THMK-C06R-03	7.00[177.8]
THMK-C12R-03	13.00[330.2]



Probe Replacement

1. Open top cover.
2. Disconnect wires and remove terminal block.
3. Remove snap ring at bottom of head (snap ring pliers recommended).
4. Slide out old probe and slide new probe in place.
5. While compressing spring, replace snap ring.
6. Replace terminal block and connect probe wires.

proSense® Thermocouple Spring-Loaded Probes with Connection Head - Accessories

Accessories

Part No.	Description	Pcs/Pkg	Price
<u>TW04-01</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 304 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>TW04-02</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 304 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>TW04-03</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 316 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>TW04-04</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 316 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>TW06-01</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 304 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>TW06-02</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 304 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>TW06-03</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 316 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>TW06-04</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 316 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>TW12-01</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 304 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	
<u>TW12-02</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 304 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	
<u>TW12-03</u>	ProSense thermowell, 1/2in female NPT probe connection, 1/2in male NPT process connection, 316 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	
<u>TW12-04</u>	ProSense thermowell, 1/2in female NPT probe connection, 3/4in male NPT process connection, 316 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	
<u>STW04-01</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 1-1/2in sanitary tri-clamp process connection, 316 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>STW06-01</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 1-1/2in sanitary tri-clamp process connection, 316 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>STW12-01</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 1-1/2in sanitary tri-clamp process connection, 316 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	
<u>STW04-02</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 2in sanitary tri-clamp process connection, 316 stainless steel body, 4-1/4in overall length, 0.260in bore.	1	
<u>STW06-02</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 2in sanitary tri-clamp process connection, 316 stainless steel body, 6-1/4in overall length, 0.260in bore.	1	
<u>STW12-02</u>	ProSense sanitary thermowell, 1/2in female NPT probe connection, 2in sanitary tri-clamp process connection, 316 stainless steel body, 12-1/4in overall length, 0.260in bore.	1	

Note: Full listing of accessories and dimension information available at the end of this section. Thermocouple extension lead wire available at www.automationdirect.com.

Spring-Loaded Thermocouple Probe and Thermowell Assembly Example



-Spring-loaded probe design ensures positive tip contact with the bottom of the thermowell.
 -Integral probe hex nipple threads directly into thermowell. No additional probe mounting fittings are required.