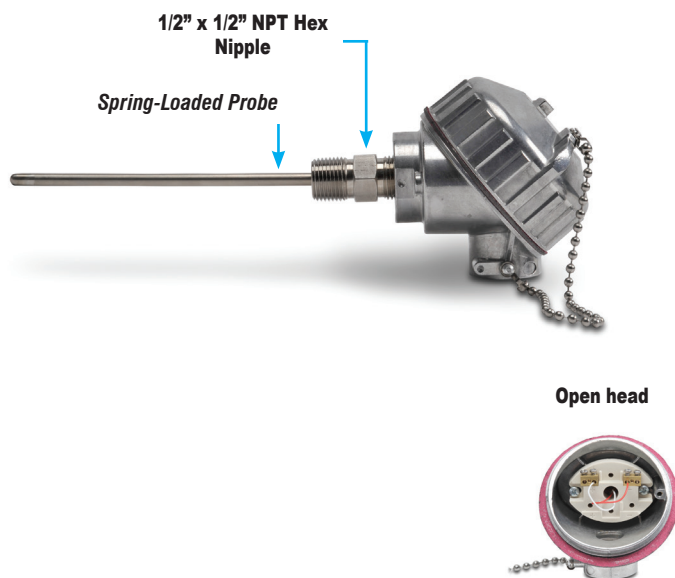


prosense® Thermocouple Spring-Loaded Probes with Connection Head

THMJ & K - CXX-03



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
<u>THMJ-C04-03</u>	1	1.3	\$76.00	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)
<u>THMJ-C06-03</u>			\$80.00	J		6"		
<u>THMJ-C12-03</u>			\$84.00	J		12"		
<u>THMK-C04-03</u>			\$76.00	K		4"	0 to 927°C (32 to 1700°F)	
<u>THMK-C06-03</u>			\$80.00	K		6"		
<u>THMK-C12-03</u>			\$84.00	K		12"		

prosense® Thermocouple Spring-Loaded Probes with Connection Head

Technical Specifications	
Junction Type	Ungrounded
ASTM E230 Standard Limits of Error	$\pm 2.2^{\circ}\text{C}$ ($\pm 4.0^{\circ}\text{F}$) or 0.75%, whichever is greater
Probe	$\phi 1/4"$, 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

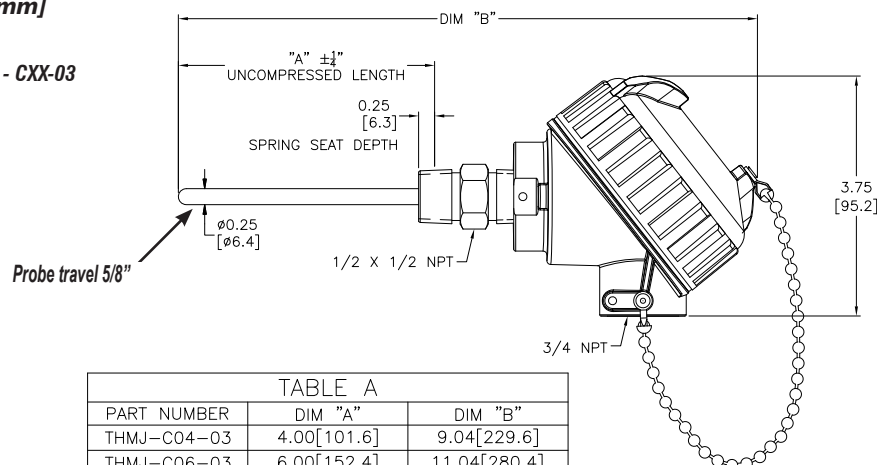
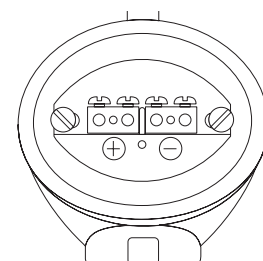


TABLE A

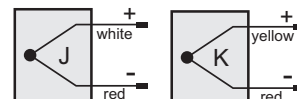
PART NUMBER	DIM "A"	DIM "B"
THMJ-C04-03	4.00[101.6]	9.04[229.6]
THMJ-C06-03	6.00[152.4]	11.04[280.4]
THMJ-C12-03	12.00[304.8]	17.04[432.8]
THMK-C04-03	4.00[101.6]	9.04[229.6]
THMK-C06-03	6.00[152.4]	11.04[280.4]
THMK-C12-03	12.00[304.8]	17.04[432.8]

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



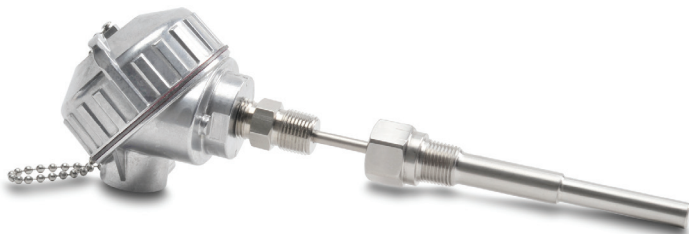
proSense® Thermocouple Spring-Loaded Probes with Connection Head - Accessories

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	\$34.00
<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	\$34.00
<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	\$42.50
<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	\$42.50
<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	\$46.00
<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	\$46.00
<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	\$54.00
<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	\$54.00
<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	\$74.00
<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	\$74.00
<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	\$93.00
<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	\$93.00
<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	\$101.00
<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	\$108.00
<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	\$150.00
<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	\$112.00
<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	\$120.00
<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	\$156.00

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.