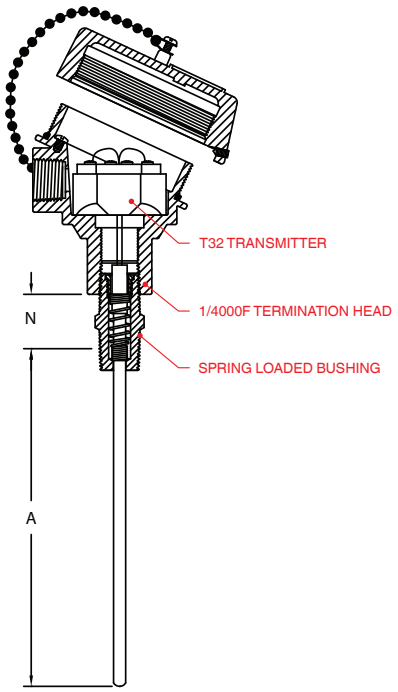
TC10-4 Industrial Thermocouple Assembly

Spring Loaded (Neck Extension External)

TC10-4 thermocouples are industrial assemblies supplied with or without a temperature transmitter. An extensive range of thermocouple calibrations, connection heads, insertion lengths and neck lengths can be individually selected for the appropriate application.

Spring loading is acheived utilizing a spring loaded bushing as or as part of the neck extension. The spring loaded bushing can be combined with a nipple and union for ease of installation. An o-ring seal bushing is also available for direct mount into the process.

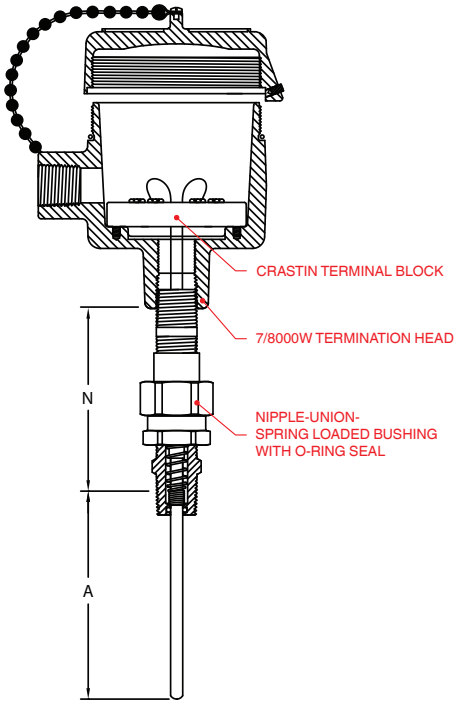
Replacement sensors can also be configured for this model.



THERMOCOUPLE ASSEMBLY SAMPLE
TC10-4-0-I-Z-1AW-13-6-SL-010-B-1-1-P-00600-Z

Features:

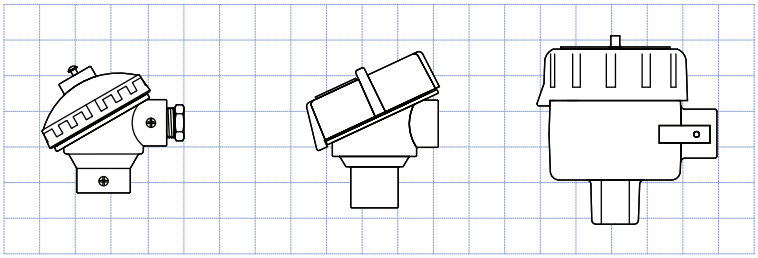
- The sensor is designed to be mounted into a thermowell or directly into the process (o-ring seal bushing).
- The assembly has electrical approvals for explosion proof hazardous locations, ingress protection and general purpose areas.
- Electrical authorities that have registered these approvals include CSA, FM and ATEX. The approvals must be with an attached WIKA thermowell.
- The thermocouple sensor is spring-loaded ensuring a positive contact to the required location.



THERMOCOUPLE ASSEMBLY SAMPLE
TC10-4-0-I-Z-7AW-13-1-OU-030-B-1-1-P-00600-Z

Connection Heads

Imperial Grid 1" x 1"



KN4-A
KN4-P

1/4000F
1/4000S

7/8000W

Edmonton Tel: (780) 463.7035 | Chilliwack Tel: (604) 816.2646 | Calgary Tel: (403) 237.5960 | Fort McMurray Tel: (780) 791.9995 | Grande Prairie Tel: (780) 831.5257 | Saskatoon Tel: (306) 664.1105 | Oakville Tel: (905) 337.1611 | Sarnia Tel: (519) 344.1339 | Montréal Tel: (514) 332.0330 | Quebec City Tel: (418) 952.7779

TC10-4-...

Create your product part number by selecting the appropriate assembly items from each of the categories below.
Enter the item code into the applicable box to generate the part number.
Note: Some configurations are unavailable. Your WIKA sales representative will notify you if you have made an incorrect selection.

Part Number	TC10-4-X-X-X-XXXXX-X-XX-XXX-X-X-X-X-XXXXX-X

1	Assembly description
Code	
0	Industrial assembly configured
1	Industrial sensor configured (no termination head)

2	Unit of measure
I	Imperial (inch)
M	Metric (mm)

3	Electrical approval
C	CSA Ex-proof Class I Division 1 *WIKA Thermowell required*
F	FM Ex-proof Class I Division 1 *WIKA Thermowell required*
J	ATEX ZONE 1 gas Ex d IIB+H2 T6 acc. to directive 94/9/EC *WIKA Thermowell required*
Z	Without

4	Connection head
1AW	1/4000 F (Aluminum)
1SW	1/4000 S (Stainless steel)
7AW	7/8000 W (Aluminum)
KAW	KN4-A (Aluminum)
KPW	KN4-P (Polypropylene)
ZZZ	Without

5	Instrument x Conduit entry
11	1/2 NPT x 1/2 NPT
13	1/2 NPT x 3/4 NPT
12	1/2 NPT x M20x1.5
31	3/4 NPT x 1/2 NPT (reducer)
33	3/4 NPT x 3/4 NPT
32	3/4 NPT x M20x1.5
ZZ	Without

6	Terminal block / Transmitter
1	Crastin terminal block
2	Ceramic terminal block
7	T16, Digital transmitter, 4...20mA, universally progammable
6	T32, Digital transmitter, HART®, universally programmable
9	T53, Fieldbus transmitter, FOUNDATION Fieldbus, PROFIBUS® PA
B	T91.10, Analogue transmitter, fixed measuring range
Y	Without

7	Neck extension
SL	Spring loaded bushing without o-ring seal (SS)[3]
OS	Spring loaded bushing with o-ring seal (SS)[3]
SU	Spring loaded bushing-Union-Nipple (SS)
OU	Nipple-Union-Spring loaded bushing with o-ring seal (SS)[3]

8	N-Dimension (N) - Neck Extension Length
010	1.0 inch (25 mm) - *Standard for Bushings only (no union)*
030	3.0 inch (76 mm)
040	4.0 inch (102 mm)
050	5.0 Inch (127 mm) - *Standard for Union-Nipple*
060	6.0 inch (152 mm)
080	8.0 Inch (204 mm)

9	Thermocouple sensor
A	Type K (NiCr-NiAl) / 0...+1260 °C
B	Type K (NiCr-NiAl) / 0...+1260 °C Special Limits of Error[1]
C	Type J (Fe-CuNi) / 0...+760 °C
D	Type J (Fe-CuNi) / 0...+760 °C Special Limits of Error[1]
E	Type N (NiCrSi-NiSi) / 0...+1260 °C
F	Type N (NiCrSi-NiSi) / 0...+1260 °C Special Limits of Error[1]
G	Type E (NiCr-CuNi) / 0...+870 °C
H	Type E (NiCr-CuNi) / 0...+870 °C Special Limits of Error[1]
J	Type T (Cu-CuNi) / -200...+370 °C
K	Type T (Cu-CuNi) / -200...+370 °C Special Limits of Error[1]

10	Thermocouple junction
1	Single Ungrounded
2	Single Grounded
3	Dual Ungrounded
4	Dual Grounded

11	Sensor diameter
1	1/4 inch / 0.250 inch (6.35 mm)
8	3/8 inch / 0.375 inch (9.53 mm)
D	6.0 mm (0.235 Inch)

12	Sheath material
P	Stainless steel 316 / 316 L (1.4401 / 1.4435)
O	Stainless steel 310 (1.4841)
J	Inconel® 600 (2.4816)
I	Hastelloy® X (2.4665)
T	Stainless steel 446 (1.4762)
H	Hastelloy® C276 (2.4819)

13	A-Dimension (A) - Sensor Insertion Length
*****	Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950)

14	Certificates
1	Yes[2]
Z	Without

Notes:

[1] As per ASTM E230.
[2] See Data Sheet CERT.31 for certificate options and details.
[3] Rated to 100 psi @ 86°C, hydrostatic tested in H_2O