

## TC15 Remote Mount Industrial Thermocouple Assembly

TC15 series thermocouples are remote mounted industrial assemblies supplied with or without a temperature transmitter. They are designed for applications where direct mounting is inaccessible, where there is excessive radiated or conducted heat, or applications where high vibrations exist.

An extensive range of elements, connection heads, insertion lengths and process connections can be individually selected for the appropriate application. Replacement sensors can also be configured for this model.

Thermocouples in this series can be inserted directly into a process or combined with a variety of thermowell designs.

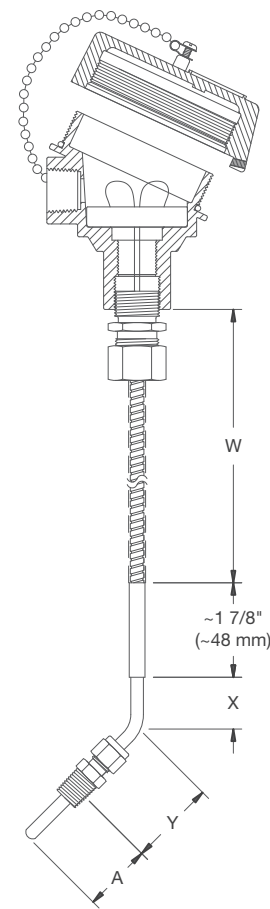
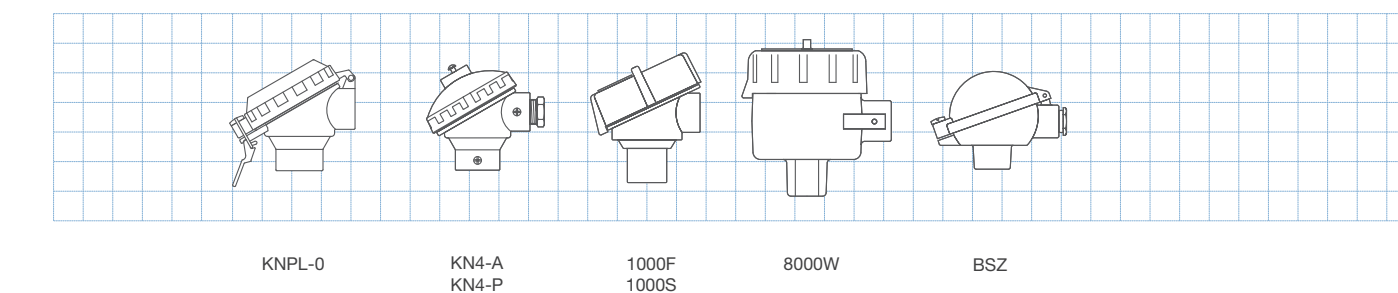
### Applications:

TC15 series assemblies are suitable for most industrial and commercial applications including:

- Chemical and petrochemical industries
- Energy and power plant technology
- Furnaces, kilns, ovens and boilers
- Incinerators
- Machinery, plant and tank measurement
- Oil and gas industries
- Offshore exploration and drilling
- Pipeline control
- Power and utilities
- Pulp and paper
- Water and wastewater treatment

### Connection Heads

Imperial Grid 1" x 1"



# TC15

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 person will notify you if you have made an incorrect selection

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26																																						
<b>1 Assembly description</b>		<b>2 Unit of measure</b>		<b>3 Electrical approval</b>		<b>4 Connection head</b>		<b>5 Cable entry</b>		<b>6 Head instrument connection</b>		<b>7 Terminal block / Transmitter</b>		<b>8 Neck extension</b>		<b>9 Fitting style</b>		<b>10 Fitting material</b>		<b>11 Thread size</b>		<b>12 Element</b>		<b>13 Number of sensors</b>		<b>14 Classification tolerance</b>		<b>15 Measuring point</b>		<b>16 Sensor diameter</b>		<b>17 Sheath material</b>		<b>18 Lead wire insulation</b>		<b>19 Termination</b>		<b>20 Sensor design</b>		<b>21 W-Dimension (W)</b>		<b>22 X-Dimension (X)</b>		<b>23 Y-Dimension (Y)</b>		<b>24 A-Dimension (A)</b>		<b>25 Certificates</b>		<b>26 Additional order details</b>													
Part Number: TC15-X-XXXXXXXXXXXXXXXX-XXXX-XXXX-XX		Code: 0 Industrial assembly configured, 1 Industrial sensor configured		L CSA Ex-proof Class 1 Division II, M FM Ex-proof Class 1 Division II, Z Without		5 1000 F (Aluminum), 6 1000 S (Stainless steel), 4 8000 W (Aluminum), 7 KN4-A (Aluminum), 9 KNPL-0 (Aluminum), B BSZ (Aluminum), 8 KN4-P (Polypropylene), Z Without		S 1/2 NPT, F 3/4 NPT, T M20 x 1.5, Z Without		S 1/2 NPT, F 3/4 NPT, B G 1/2 B (BSP 1/2 inch)		1 Crastin terminal block, 2 Ceramic terminal block, 3 T12 (Programmable Digital Transmitter), 8 T19 (Analogue Transmitter), 6 T32 (HART® Transmitter), 9 T53 (Fieldbus Foundation / PROFIBUS PA Transmitter), B T91.10 (Analogue Transmitter, DIN form B), Y Without / flying leads		1 Remote mount, 2 Remote mount with electrical cord grip		J Spring loaded fitting, B Compression fitting with stainless steel ferrule, C Compression fitting with Teflon® ferrule, Z Without		A Stainless steel 316 (1.4401), B Stainless steel 316 Ti (1.4571), Z Without		K 1/2 NPT, J 3/4 NPT, Z Without		1 Type K (NiCr-Ni) / 0...+1260 °C, 3 Type J (Fe-CuNi) / 0...+760 °C, 7 Type E (NiCr-CuNi) / 0...+870 °C, 5 Type N (NiCrSi-NiSi) / 0...+1260 °C, 9 Type T (Cu-CuNi) / -200...+370 °C		1 Single, 2 Dual		8 ISA standard to ANSI MC96.1-1982, 9 ISA special to ANSI MC96.1-1982, 2 Class 2 per DIN EN 60584, 1 Class 1 per DIN EN 60584		1 Ungrounded, 2 Grounded		1 1/4 inch / 0.250 inch (6.35 mm), 4 3/16 inch / 0.188 inch (4.75 mm), 2 1/8 inch / 0.125 inch (3.17 mm), 5 1/16 inch / 0.063 inch (1.59 mm), B 3.0 mm, D 6.0 mm, N 1.5 mm, C 4.5 mm		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)		B Armoured Teflon®, A Armoured fibreglass, G Teflon® armour over Teflon®, D PVC armour over Teflon®, E Teflon® armour over fibreglass		1 Stripped leads, 2 Spade lugs		0 Straight, 4 45 degree bend, 9 90 degree bend		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without		Please specify (e.g. 84 mm = 00084) (e.g. 9.5 inch = 00950), ZZZZ Without	





# WIKA worldwide

## TC15 - Remote Mount Industrial Thermocouple Assembly

Sensor Element:	<ul style="list-style-type: none"> <li>Type K (NiCr-Ni),</li> <li>Type J (Fe-CuNi),</li> <li>Type E (NiCr-CuNi),</li> <li>Type N (NiCrSi-NiSi),</li> <li>Type T (Cu-CuNi)</li> </ul>
Temperature range:	-200 °C to +1260 °C (depending upon element)
Number of sensors:	<ul style="list-style-type: none"> <li>2-wire single circuit</li> <li>4-wire dual circuit</li> </ul>
Classification tolerance:	<ul style="list-style-type: none"> <li>Class 2 and class 1 per DIN EN 60584</li> <li>ISA standard and special to ANSI MC96.1-1982</li> </ul>
Measuring point:	Ungrounded or grounded
Electrical approvals:	CSA, FM
Options:	<ul style="list-style-type: none"> <li>Lengths and diameters standard or customer specific</li> <li>Transmitter mounted directly within connection head</li> <li>Calibration - single point and multiple points</li> <li>Material traceability of the thermocouple alloys, metal sheath and mineral insulation</li> <li>Selectable accuracy tolerance</li> <li>Special designs and materials</li> <li>Explosion protection CSA, FM</li> <li>Thermocouple transmitter matching</li> </ul>

### Features:

- The sensor can be mounted into a thermowell or directly into a process with the use of a spring loaded or compression process fitting.
- The assembly can be supplied with or without a transmitter. Transmitters convert the millivolt input from the thermocouple to a linear analogue or digital output (commonly 4-20 mA). This signal reduces potential inaccuracies in the circuit and negates the requirement for thermocouple extension wire.
- 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 and FM. The approvals can be with or without an attached thermowell.
- The thermocouple sensors available for this assembly are provided with a variety of sheath materials including austenitic 300 series and ferritic 400 series stainless steels, corrosion resistant and high temperature oxidation resistant alloys.
- Thermocouple diameters range from 0.063 inch to 0.250 inch and 1.5 mm. to 6 mm. Standard diameters are 0.125 inch & 0.250 inch and 6 mm.
- Thermocouple temperature ranges are dependent on the sheath & conductor diameter, element calibration, and sheath material.
- For applications that are exposed to outside weather conditions or where moisture is present, the flexible armour extension can be provided with a moisture-proof jacket of PTFE (Teflon) or PVC.
- An external spring-loaded fitting or a compression fitting can be provided for mounting directly into a process or thermowell.
  - The spring-loaded fitting ensures a positive contact to the base of a thermowell bore.
  - The compression fitting rigidly holds the sensor in place in applications with high process pressure.
- The flexible armour into the connection head can be secured with an electrical compression gland (cord grip) or with a rigid, fixed fitting.



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Part of your business



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