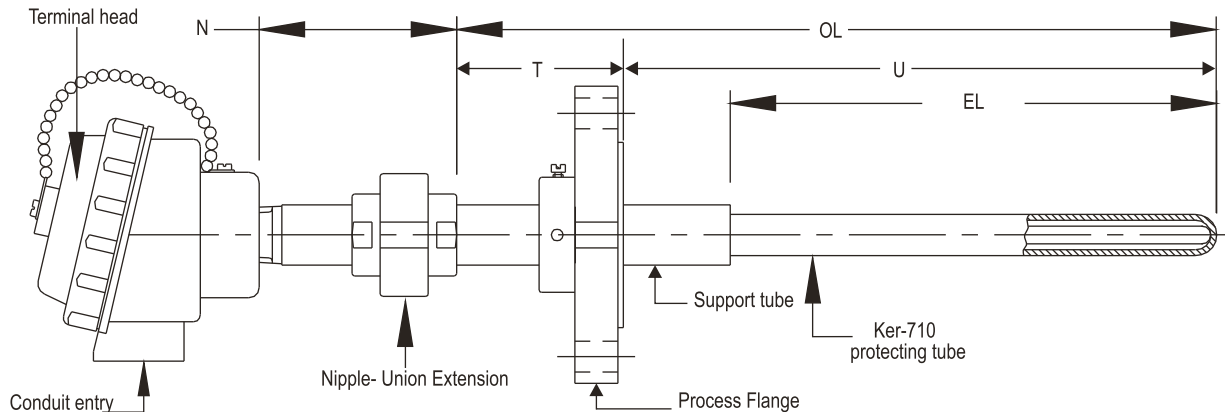


**THERMOCOUPLE ASSEMBLY WITH KER - 610/710  
SINGLE PROTECTION TUBE (FLANGED)**

**TC2**



**Application :**

Temperature measurement of furnaces, combustion chambers, recuperators and Similar applications.

**Standard Product Details**

|                                  |   |
|----------------------------------|---|
| Thermocouple Type                | Thermocouple Element With Ceramic Insulators (Beaded Element) |
| No of Elements                   | Simplex   |
| Accuracy                         | Class 2 as per IEC - 584.2                                    |
| Elements                         | Plat. 13% Rhod. - Plat  |
| Hot Junction Type                | Ungrounded Junction   |
| Wire Diameter for Beaded Element | 24 AWG  |
| Sheath Material                  | None  |
| Terminal Head Type               | Screwed type, weatherproof, IP-65 in die-cast Aluminium       |
| No. Of Conduit Entries           | One   |
| Conduit Entry Size               | 3/4" ET(F)  |
| Head Extension Type              | Head Only   |
| Support Tube Material            | SS 446  |
| Protecting Tube Material         | Recrystallised Alumina  |
| Protecting Tube Size             | 15x2.5 mm   |
| Flange Material                  | ASTM A105 (CS)  |
| Flange Type/Size                 | Adjustable Flange (1.5" 150#RF)                               |
| Extension Length "T" mm          | Not Applicable  |
| Overall/Insertion/Exposed Length | OL=500/EL=300 mm  |
| Extension Length "N" mm          | Not Applicable  |
| Option Description               | S.C. cable gland in nickel plated brass                       |

**HOW TO ORDER**

| Code | Thermocouple Type                                   |
|------|---|
| MI   | Mineral Insulated Metal Sheathed                    |
| BE   | TC Element With Ceramic Insulators (Beaded Element) |

1

| Code | No. Of Elements |
|------|-----------------|
| S    | Simplex         |
| D    | Duplex          |
| T    | Triplex         |

2

| Code | Accuracy                   |
|------|----------------------------|
| 1    | Class 1 as per IEC - 584.2 |
| 2    | Class 2 as per IEC - 584.2 |

3

| Code | Elements                         |
|------|----------------------------------|
| K    | Chromel-Alumel                   |
| R    | Plat. 13% Rhod. - Plat.          |
| S    | Plat. 10% Rhod. - Plat.          |
| B    | Plat. 6% Rhod. - Plat. 30% Rhod. |
| N    | Nicrosil - Nilil                 |

4

| Code | Hot Junction Type   |
|------|---------------------|
| G    | Grounded Junction   |
| UG   | Ungrounded Junction |

5

| Code | Sheath Diameter For MI. Thermocouple | Or   | Code   | Wire Diameter For Beaded Element |
|------|--------------------------------------|------|--------|----------------------------------|
| 3    | 3.0 mm                               |      | 24 A   | 24 AWG                           |
| 4.5  | 4.5 mm                               | 20 A | 20 AWG |                                  |
| 6    | 6.0 mm                               | 18 A | 18 AWG |                                  |
| 8    | 8.0 mm                               | 16 A | 16 AWG |                                  |
| 10   | 10.0 mm                              | 14 A | 14 AWG |                                  |
| 12   | 12.0 mm                              | 8 A  | 8 AWG  |                                  |

Consult factory for other size.

6

**Special Features :**

- ★ Assembly with ker 710/610 tube for high temperature application.
- ★ Thermocouple element is available in different wire size.
- ★ Enclosures in all material - Die cast Aluminium / Cast Iron / SS 304 / SS 316
- ★ Enclosures in all categories (Weatherproof, IP-65 to IP-68), Flameproof GR. IIA IIB and Explosionproof, GR. IIA IIB IIC for H<sub>2</sub>serviceapplication.

| Code  | Sheath Material |
|-------|-----------------|
| INC.6 | Inconel 600     |
| X     | None            |

7

| Code | Terminal Head Type   |
|------|--|
| SWP  | Screwed type, weatherproof, IP-65 in die-cast Aluminium                          |
| SFP  | Screwed type, ?amerproof Gr. IIA IIB in die-cast Aluminium                       |
| SEP  | Screwed type, explosionproof Gr.IIC in die-cast Aluminium                        |
| JWP  | Junction box, weatherproof, IP-65 in die-cast Aluminium                          |
| JFP  | Junction box, ?amerproof Gr. IIA IIB in die-cast Aluminium                       |
| JEP  | Junction box, explosionproof Gr.IIC in die-cast Aluminium                        |
| BWP  | Weatherproof Head, IP-65 in die-cast Aluminium with cover ?tted with two screws. |

8

| Code | No. Of Conduit Entry/Entries |
|------|------------------------------|
| 1    | One                          |
| 2    | Two                          |
|      | Other, Please Specify        |

9

| Code | Conduit Entry Size    |
|------|-----------------------|
| A    | 3/4" ET(F)            |
| B    | 1/2"NPT(F)            |
| C    | 3/4"NPT(F)            |
|      | Other, Please Specify |

10

| Code | Head Extension Type      |
|------|--------------------------|
| X    | Head Only                |
| NU   | Head With Nipple & Union |

11

| Code  | Support Tube Material |
|-------|-----------------------|
| INC.6 | Inconel 600           |
| INC.8 | Incolloy 800          |
| 310   | S 10                  |
| 446   | S 44                  |

12

| Code    | Protecting Tube Material |
|---------|--------------------------|
| KER-710 | Recrystallised Alumina   |
| KER-610 | Pythagoras               |

13

| Code | Protecting Tube Size |
|------|----------------------|
| 6    | 6x1.0 mm             |
| 8    | 8x1.5 mm             |
| 10   | 10x2.0 mm            |
| 12   | 12x2.0 mm            |
| 15   | 15x2.5 mm            |
| 20   | 20x2.5 mm            |
| 24   | 24x3.0 mm            |

14

| Code | Flange Material                     |
|------|-------------------------------------|
| A105 | ASTM A105 (CS)                      |
| F304 | A182 F304                           |
| F316 | A182 F316                           |
|      | Consult factory for other material. |

15

| Code | Flange Type / Size               |
|------|----------------------------------|
| FF   | Fixed Flange (Specify Size)      |
| AF   | Adjustable Flange (Specify Size) |

16

| Code  | Overall/Insertion/Exposed Length |
|-------|----------------------------------|
| U/EL  | Specify in mm.                   |
| OL/EL | Specify in mm.                   |

17

| Code | Extension Length "T"mm |
|------|------------------------|
| T    | Specify in mm.         |
| X    | Not Applicable         |

18

| Code | Extension Length "N"mm |
|------|------------------------|
| N    | Specify in mm.         |
| X    | Not Applicable         |

19

| Code | Option Description  |
|------|---|
| 0    | None  |
| 3    | Terminal head in SS 304                                       |
| 4    | Terminal head in SS 316                                       |
| 5    | Terminal head in Cast Iron                                    |
| 6    | S.C. cable gland in nickel plated brass                       |
| 7    | D.C. cable gland in nickel plated brass                       |
| 8    | S.C. cable gland in SS 304                                    |
| 9    | D.C. cable gland in SS 304                                    |
| 11   | S.C. cable gland in SS 316                                    |
| 12   | D.C. cable gland in SS 316                                    |
| 13   | Head mounted temp. transmitter                                |
| 14   | S.S. base plate suitable for Temperature Transmitter mounting |
| 15   | Head Extension in SS 304.                                     |
| 16   | Head Extension in SS 316.                                     |
| 20   | Plug for conduit entry in Carbon Steel [ASTM A105]            |
| 21   | Plug for conduit entry in SS 304                              |
| 22   | Plug for conduit entry in SS 316                              |
| 23   | Plug for conduit entry in Aluminium                           |
| PW   | Five Point Factory Calibration Certi?cate                     |
| SX   | SS Tag Plate  |

20

**Note :**

- When selecting option "PW", please also specify measuring temperature range.(For e.g. 0/300°C)
- Explanations of Abbreviations used:  
 SC = Single Compression  
 DC = Double Compression  
 SS = Stainless Steel

(Ordering Example)


**TC2** BE S 2 R UG 24 X SWP 1 A X 446 KER-710 15 A105 AF(1.5"150#RF)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

OL=500/EL=300 X X 6

17 18 19 20

Distributor



**KB&T**  
**KB& TRADERS**

79/1, APS Complex, Iduvampalayam Road,  
 Periyandipalayam Tiruppur-641687, India  
 Mobile: 90477 77573, Tel : 0421 4955647  
 Email: sales@kbandtraders.com.  
 Web: www.kbandtraders.com