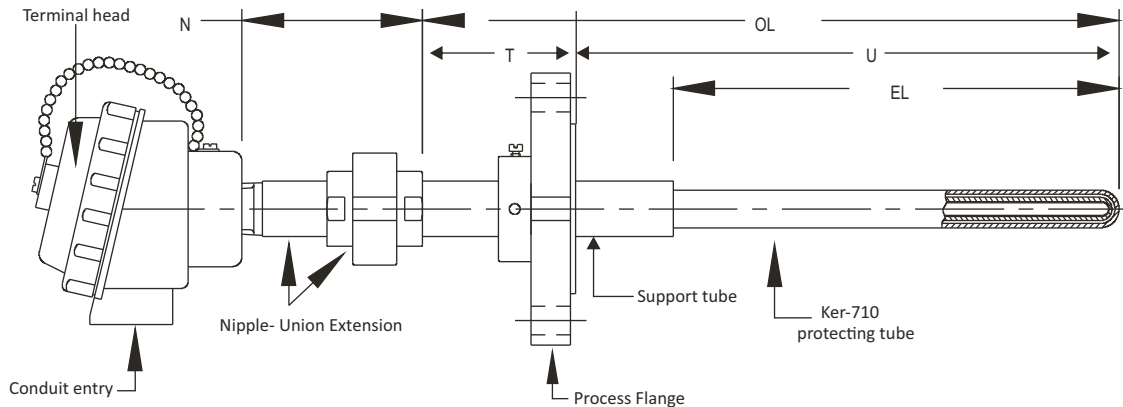


**THERMOCOUPLE ASSEMBLY WITH KER - 610/710
DOUBLE PROTECTION TUBE (FLANGED)**

TC3



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
Inner Protecting Tube Material	Recrystallised Alumina
Inner Protecting Tube Size	8x1.5 mm
Outer Prot. Tube Mtrl	Recrystallised Alumina
Outer Protecting Tube Size	15x2.5 mm
Flange Material	ASTM A105 (CS)
Flange Type / Size	Adjustable Flange (1.5"150#RF)
Overall/Insertion/Exposed Length	U=500/EL=300 mm
Extension Length "T" mm	Not Applicable
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

For duplex element, please indicate double letter, example KK.

4

Code	Hot Junction Type
G	Grounded Junction
UG	Ungrounded Junction

5

Code	Sheath Diameter For Ml. 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 H₂service application.

Code	Sheath Material
INC.6	Inconel 600
X	None

Code	Terminal Head Type
SWP	Screwed type, weatherproof, IP-65 in die-cast Aluminium
SFP	Screwed type, weatherproof Gr. IIA IIB in die-cast Aluminium
SEP	Screwed type, explosionproof Gr.IIC in die-cast Aluminium
HWP	Hinged type, weatherproof, IP-65 in die-cast Aluminium
JWP	Junction box, weatherproof, IP-65 in die-cast Aluminium
JFP	Junction box, weatherproof 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 fitted with two screws.

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

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

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

Code	Support Tube Material
S10	SS 310
S44	SS 446
INC6	Inconel 600
INC8	Incolloy 800

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

Code	Inner Protecting Tube Size
6	6x1.0 mm
8	8x1.5 mm
10	10x2.0 mm
12	12x2.0 mm

Code	Outer Prot. Tube Mtrl.
KER-710	Recrystallised Alumina
KER-610	Pythagoras
AF	Kanthal AF
APM	Kanthal APM

Code	Outer Protecting Tube Size
12	12x2.0 mm
15	15x2.5 mm
20	20x2.5 mm
24	24x3.0 mm

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

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

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

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

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

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 Certificate
SX	SS Tag Plate

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

(Ordering Example)

TC3 [BE] [S] [1] [R] [UG] [24] [X] [SWP] [1] [A] [X] [S44] [KER 710] [8] [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 ⑰ ⑱
 [OL=500/EL=300] [X] [X] [6]
 ⑲ ⑳ ㉑ ㉒