



Thank you for sparing a few minutes for the newsletter of Goa Instruments ! I hope the newsletter was useful.

The following technical information on Thermocouple is for reference only. Many factors which influence the T/C measuring junction are - temperature of the surroundings, velocity & properties of fluid, emissivity of the exposed surface, thermal conductivity of thermocouple & well materials, ratio of heat transfer areas etc. These are also to be considered while deciding the type of T/C & the wire size.

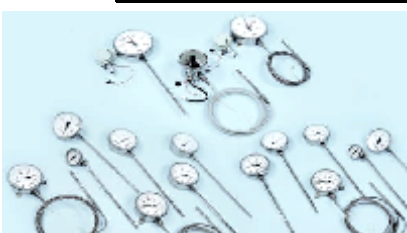
**Technical Information on type of T/C & its Limits:**

T/C TYPE	CHEMICAL COMPOSITION		Temperature Range Deg C	Std Limits of error (whichever is greater)
	+ve Leg	-ve Leg		
E	Ni, 10%Cr	Cu, 45%Ni	0 To 900	+/-1.7Deg C or +/-0.5%
J	Fe	Cu, 45%Ni	0 To 750	+/-2.2Deg Cor +/-0.75%
K	Ni, 9.2%Cr, 0.4%Si	Ni, 2.5%Si, Co1.2%	0 To 1250	+/-2.2Deg Cor +/-0.75%
T	Cu	Cu, 45%Ni	0 To 350	+/-1.0Deg Cor +/-0.75%
S	Pt	Pt, 10% Rh	0 To 1450	+/-1.5Deg Cor +/-0.25%
R	Pt	Pt, 13% Rh	0 To 1450	+/-1.5Deg C or +/-0.25%
B	Pt, 30% Rh	Pt, 6% Rh	870 To 1700	+/-0.5%

Chart showing maximum temp. range for different conductor diameters for thermocouples:

**Wire Size(AWG) Versus Upper Service Temperature.**

Type	8Gauge/ 3.25mm Diameter	14Gauge/ 1.63mm Diameter	20Gauge/ 0.81mm Diameter	24Gauge/ 0.51mm Diameter	28Gauge/ 0.33mm Diameter
E	870 Deg C	650 Deg C	540 Deg C	430 Deg C	430 Deg C
J	760 Deg C	590 Deg C	480 Deg C	370 Deg C	370 Deg C
K	1260 Deg C	1090 Deg C	980 Deg C	870 Deg C	870 Deg C
T	----	370 Deg C	260 Deg C	200 Deg C	200 Deg C
S	----	----	----	1480 Deg C	----
R	----	----	----	1480 Deg C	----
B	----	----	----	1700 Deg C	----



M/s. GOA INSTRUMENTS INDUSTRIES PVT LTD  
 D2/5, MAPUSA INDUSTRIAL ESTATE,  
 MAPUSA, GOA- 403507  
 TEL NO: 0832-2262872/2262610  
 FAX NO:0832-2262814  
 Email: sales@goainstruments.com  
 Web: www.goainstruments.com

