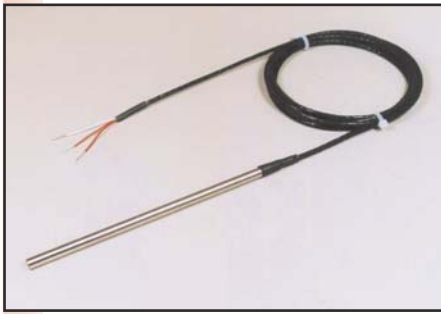
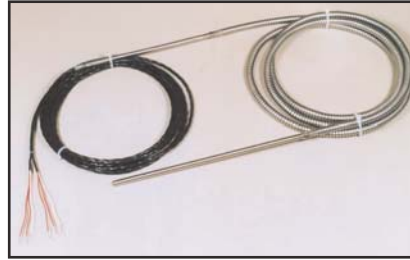


## RESISTANCE THERMOMETER DEVICES (RTDs)



3 WIRE STAINLESS STEEL SHEATHED



DUPLEX 3 WIRE CHAMBER PROBE



KS TYPE INDUSTRIAL HEAD

Resistance thermometer devices (RTDs) are based on the principle that electrical resistance changes with a change in temperature. Most RTDs use a platinum detector which results in a relatively linear relationship between temperature and resistance. Our standard range of RTD sensors use Platinum PT100 detectors, so called because the resistance of the detector is 100  $\Omega$  at 0°C, and meet the requirements of class A or class B of BS EN 60751:1996 (see below).

We can also offer PT1000 sensors as well as a wide range of non-standard sensors for special applications.

PT100 probes have an effective maximum operating temperature of 600°C. Their actual operating temperature range is usually limited by the cable insulation material:-

PVC :	-10 to 105°C
Tefzel :	-75 to 155°C
Silicone rubber :	-60 to 200°C
FEP :	-75 to 200°C
PTFE :	-75 to 250°C
Glass Fibre :	0 to 350°C
Mineral Insulated Stainless steel :	600°C max

### BS EN60751 : 1996 PT100 SENSOR STANDARD TOLERANCES

Temperature °C	Tolerance			
	Class A		Class B	
	$\pm$ °C	$\pm$	$\pm$ °C	$\pm$
-200	0.55	0.24	1.3	0.56
-100	0.35	0.14	0.8	0.32
0	0.15	0.06	0.3	0.12
100	0.35	0.13	0.8	0.30
200	0.55	0.20	1.3	0.48
300	0.75	0.27	1.8	0.64
400	0.95	0.33	2.3	0.79
500	1.15	0.38	2.8	0.93
600	1.35	0.43	3.3	1.06

### ASSEMBLY OPTIONS

RTD probes can be assembled using a variety of cable types and fittings to suit any application. The more common variations are as shown below.

Output	Detector	Accuracy	Sheath	Cable type	Termination	Fitting	
2 wire	PT100	A	None	PVC	Stripped tails	1/8BSP(T)	
3 wire	PT1000	B	Stainless steel	Tefzel	Spade terminals	1/4BSP(T)	
4 wire				PVC	Silicone Rubber	Mini plug	1/2BSP(T)
				PTFE	FEP	Standard plug	
					PTFE	Standard socket	
			Glass Fibre	Industrial head			
				Pot seal			

We can also manufacture special RTDs to suit any application - please contact our sales office for details