

MAGNESIUM OXIDE (MgO) THERMOCOUPLES

MgO or Magnesium Oxide thermocouples are the most generally used temperature sensing devices throughout all industries. They are recommended where moisture proof, nonporous insulation is required, for special temperature or pressure conditions, for flexibility in forming, to reach inaccessible areas and fast response.

MgO thermocouples are obtainable in a wide selection of calibrations, sheath materials and sheath diameters.

The following guidelines have been established to help in the proper selection of a sensor best suited to your application.

Standard MgO Calibrations

Thermocouple calibrations are expressed in standard ANSI type designations. The table below will indicate the calibration, ANSI designation and total temperature range of a given calibration.

CALIBRATION ALLOWS	ANSI TYPE	COLOR CODE	TEMPERATURE RANGE °F	CONTINUOUS OPERATION
Chromel- Alumel	K	Yellow	300-2300	1800
Iron- Constantan	J	Black	300-1600	1200
Chromel- Constantan	E	Purple	-300- + 1800	1000
Copper- Constantan	T	Blue	-300- + 700	Full Range
Plat. 10% Rhod.- Plat. Pure	S	Green	40-3000	2300
Plat. 13% Rhod.- Plat. Pure	R	Green	40-3000	2300
Plat. 30% Rhod.- Plat. 6% Rhod.	B	Green	1000-3100	2800
* Tung. 5%- Tung. 26% Rhen.	C	Brown	0-4400	3000

* Special applications only - consult factory

Continuous Maximum Temperature Ratings °F, in oxidizing atmospheres.

MATERIAL	TEMPERATURE	STANDARD ANSI CALIBRATIONS
304 Stainless	1600	J-K-T-E
310 Stainless	2100	J-K
* 316 Stainless	1650	J-K-E
* 347 Stainless	1650	J-K-T
446 Stainless	2000	J-K
Inconel 600	2100	J-K-R-S