

# TYPE S PLATINUM THERMOCOUPLES FOR L&L KILNS

## THE BEST THERMOCOUPLE

The standard thermocouple used on the DynaTrol is Type K. The most common thermocouple configuration that we use is an 8 gauge exposed Type K thermocouple protected with a mullite ceramic protection tube (standard on Easy-fire, Easy-Fire XT, School-Master, Renaissance, Jupiter, eQuad-Pro, Hercules, Easy-Load, DaVinci, Liberty-Belle and Doll kilns)..

The very best thermocouple for constant high fire applications is a Type S platinum thermocouple with an alumina sheath. This is standard on the JH Series kilns and is recommended for the most extreme conditions (like firing crystalline glazes) because of its expense. You can special order a DynaTrol with Type S thermocouples. The control is hard programmed for this (to avoid potential misfiring) and special calibrated wire connects the platinum thermocouples with the control.

*Below is Type S Platinum Thermocouple:*



## TECHNICAL INFORMATION

Type S thermocouples are composed of a positive leg which is 90% platinum and 10% Rhodium, and a negative leg which is 100% platinum. It is usable from 32°F to 2700°F. (0°C to 1480°C). It has a different EMF output than Type K thermocouples (meaning the same temperature will produce different voltages to the control which must then be interpreted differently).

At temperatures used in pottery kilns (even the highest 2400°F) these thermocouples can last for a very long time (as long as they are not mechanically broken).

**The lead wires that go from the Type S thermocouple to the control are a special grade that is not interchangeable with Type K lead wire.**

On DynaTrols used before Jan 1, 2006 this is not a retrofittable option. In other words, you need to order these thermocouples when you order the DynaTrol. (If you want to convert your old DynaTrol to Type S there will be a \$150 charge - plus the cost of the thermocouple - which will include the cost of replacing the lead wires and putting a new chip in the control board)..

On DynaTrol 700 controls (used after Jan 1, 2006) the control can be easily converted from Type K to Type S in the field. You will still need to change the lead wire. Contact factory for more information.

## DESCRIPTION

The Type S thermocouples that we provide have a 5/16" OD alumina sheath. They are ungrounded. There are three lengths. The short one used in the Easy-fire, Easy-Fire XT, Jupiter, eQuad-Pro, JH Series, DaVinci, and Doll kilns is 120mm (4.75") long. The medium one used in the Hercules and Easy-Load front-loading kilns is 160mm long (6.3"). The long one used in the Renaissance front-loading kilns is 220mm long (8.66"). Termination is in a ceramic terminal block.

## PRICES

One Type S Thermocouple is used for each zone in a kiln using a DynaTrol control board. The number of zones are dependent on the kiln model, typically a kiln will have two or three zones.

Type S thermocouples are not available on any kilns using a One-Touch™ control board.

### Type S Platinum Thermocouple Upgrade Price

T-G-SJUP/UG . . . . . \$150.00 each.\*

\*Price only applies at the time of purchase of a new kiln.

### 120mm (4.75") Type S Thermocouple

T-G-SXXX/00 . . . . . \$175.00 each.

### 160mm (6.3") Type S Thermocouple

T-G-SXXX/06 . . . . . \$200.00 each.

### 220mm (8.66") Type S Thermocouple

T-G-SXXX/08 . . . . . \$225.00 each.