

## ***THERMOCOUPLE RESPONSE TIME***

In many industrial applications, response time is not critical. If you do not need rapid response to changes in temperature, we recommend that you use ungrounded thermocouples. Grounded thermocouples are manufactured by the tip of the thermoelements being welded into the cap at the bottom of the thermocouple. This often results in early failure of the sensor. By using ungrounded junctions, you isolate the thermoelements and the MI-Dry insulation retards the movement of metal ions that cause decalibration of the sensor.

<b>Thermocouple Diameter</b>	<b>Junction Type</b>	<b>Typical Response Time in Seconds</b>
.062 inches	Grounded	.02 seconds
.062 inches	Ungrounded	.05 seconds
.125 inches	Grounded	.07 seconds
.125 inches	Ungrounded	1.3 seconds
.188 inches	Grounded	2.0 seconds
.188 inches	Ungrounded	2.2 seconds
.250 inches	Exposed	0.1 seconds
.250 inches	Grounded	2.0 seconds
.250 inches	Ungrounded	4.5 seconds