

DME THERMOCOUPLES - FREQUENTLY ASKED QUESTONS

NOTICE: If you have questions that are not answered by the following, please contact your DME Customer Service Representative for assistance, who will help answer your questions or put you in contact with an appropriate person who can answer your questions.

Q: I notice some DME thermocouples have different color codes for the thermocouple lead wire insulation. What do the different color code sets mean?

A: Note: The following applies to thermocouples (or heaters with integral thermocouples) sold out of the DME USA Hot Runner Catalog. It does not apply to heaters or thermocouples sold out of the DME Molding Supply Catalog.

DME has taken steps to meet the growing needs of our customers around the world. One of these steps has been to progress to an "International" thermocouple color code per IEC 584-3 (Black = positive, White = Negative):



Up to the recent past, most DME thermocouples (or heaters that have integral thermocouples) have had a color code based on the ASTM E230 standard, in which the positive thermocouple wire lead (magnetic) has a white color insulation, and the negative thermocouple lead has a red color insulation. This is traditionally common in North America:

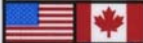






Please note that some products will continue to have the ASTM E230 standard color code (White=positive, Red = negative).

A few products may be built to the DIN 43710 (Red = positive, Blue = negative) color code specification. Over time these will be changed to the IEC 584-3 (Black = positive, White = negative) color code specification. This color code is common in Europe:



All three color codes shown above are correct. It will be important to ensure proper wire up of the thermocouple. If the thermocouple is wired up backwards (polarity of the thermocouple is reversed), the thermocouple will fail to give the temperature controller a correctly interpretable signal. For clarity, the following color code chart may be used:

J TYPE THERMOCOUPLE STANDARDS			
	STANDARD	+ LEAD (MAGNETIC)	- LEAD
INTERNATIONAL	IEC 584-3	Black	White
	ASTM E230	White	Red
	BS 1843	Yellow	Blue
	DIN 43710	Red	Blue
	JIS C 1610-1981	Red	White
	NFC 42-324	Yellow	Black

For additional information regarding DME Thermocouples, please refer to the DME Hot Runner Catalog. For other concerns regarding DME Thermocouples, please contact us by visiting our website at <http://www.dme.net>, or contact your regional DME sales representative. In the USA or Canada only, please contact DME Customer Service by visiting our website at <http://www.dme.net>, or call 800-626-6653 (U.S.) or 800-387-6000 (Canada).