

## THERMOCOUPLE AND EXTENSION-GRADE WIRE

### **THERMOCOUPLE GRADE WIRE**

Used to either fabricate thermocouples by creating a junction in one end of the wire pair, or as extension wire between the thermocouple and the measuring device. The conditions of measurement determine the type of thermocouple wire and insulation that should be used. Temperature range, wire gauge, environment, protection, insulation requirements, response and service life should all be considered.

### **THERMOCOUPLE EXTENSION WIRE**

Has approximately the same thermoelectric characteristics as thermocouple grade wire, but its purpose is only to carry the signal, not to measure temperature. Thermocouple extension wire is usually lower in cost.

<b>Insulation Characteristics</b>			
<b>Description (individual conductors/overall)</b>	<b>Temperature Limits</b>	<b>Moisture Resistance</b>	<b>Abrasion Resistance</b>
Teflon®/Teflon® FEP	204°C (400°F)	Excellent	Excellent
Teflon®/ Teflon® TFE or PFA Tape	260°C (500°F)	Excellent	Excellent
Fiberglass/Fiberglass	482°C (900°F)	Fair	Fair
Fiberglass (Filaflex®)/Fiberglass (Filaflex®) High Temp	760°C (1400°F)	Fair	Fair

<b>Calibration</b>	<b>Part Number</b>		
	<b>TC Grade, Stranded Wire</b>	<b>TC Grade, Solid Wire</b>	<b>Extension Grade, Stranded</b>
<b>Teflon®/ Teflon® FEP insulated, 20 Gauge</b>			
Type J	20JST58	20JS58	20JXST58
Type K	20KST58	20KS58	20KXST58
Type T	20TST58	20TS58	20TXST58
Type E	20EST58	20ES58	20EXST58
<b>Teflon®/ Teflon® TFE Tape insulated, 20 Gauge</b>			
Type J	20JST60	20JS60	20JXST60
Type K	20KST60	20KS60	20KXST60
Type T	20TST60	20TS60	20TXST60
Type E	20EST60	20ES60	20EXST60
<b>Fiberglass/Fiberglass insulated, 20 Gauge</b>			
Type J	20JST57	20JS57	20JXST57
Type K	20KST57	20KS57	20KXST57
Type T	20TST57	20TS57	20TXST57
Type E	20EST57	20ES57	20EXST57
<b>Fiberglass (Filaflex®)/Fiberglass (Filaflex®) insulated, 20 Gauge</b>			
Type J	20JST70	20JS70	20JXST70
Type K	20KST70	20KS70	20KXST70
Type T	20TST70	20TS70	20TXST70
Type E	20EST70	20ES70	20EXST70
<b>Fiberglass (Filaflex®)/ Fiberglass (Filaflex®) insulated, stainless steel overbraid, 20 Gauge</b>			
Type J	20JST71	20JS71	20JXST71
Type K	20KST71	20KS71	20KXST71
Type T	20TST71	20TS71	20TXST71
Type E	20EST71	20ES71	20EXST71

**Teflon®** is a registered trademark of E.I. DuPont  
**Filaflex®** is a registered trademark of PMC Corporation