**Datasheet**

**IEC PTFE Insulated Twin Twisted Pair Thermocouple Cable**

Available in Thermocouple Types K, J, T & N

- PTFE twin twisted pair for extending or making simple thermocouples
- Single pair of PTFE insulated conductors twisted together
- Good mechanical strength and flexibility, resistant to oils, acids and other adverse fluids
- Suitable for steam & pressure applications, autoclaves, sterilizers etc.
- 25 & 50 metre reel lengths
- Tolerance Class 1 for optimum accuracy
- Insulation rating -75°C to 260°C
- Colour coded to IEC-584-3

<table>
<thead>
<tr>
<th>T/C Type</th>
<th>Conductors</th>
<th>Cores</th>
<th>Reel Length</th>
<th>Allied code</th>
<th>RS order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>1/0.2mm</td>
<td>+Black/-White</td>
<td>25 metres</td>
<td>70657194</td>
<td>827-5980</td>
</tr>
<tr>
<td>J</td>
<td>1/0.2mm</td>
<td>+Black/-White</td>
<td>50 metres</td>
<td>70657195</td>
<td>827-5984</td>
</tr>
<tr>
<td>J</td>
<td>1/0.315mm</td>
<td>+Black/-White</td>
<td>25 metres</td>
<td>70657198</td>
<td>827-5993</td>
</tr>
<tr>
<td>J</td>
<td>1/0.315mm</td>
<td>+Black/-White</td>
<td>50 metres</td>
<td>70657199</td>
<td>827-5996</td>
</tr>
<tr>
<td>K</td>
<td>1/0.315mm</td>
<td>+Green/-White</td>
<td>25 metres</td>
<td>70657200</td>
<td>827-6000</td>
</tr>
<tr>
<td>K</td>
<td>1/0.315mm</td>
<td>+Green/-White</td>
<td>50 metres</td>
<td>70657205</td>
<td>827-6019</td>
</tr>
<tr>
<td>T</td>
<td>1/0.315mm</td>
<td>+Brown/-White</td>
<td>25 metres</td>
<td>70657208</td>
<td>827-6028</td>
</tr>
<tr>
<td>T</td>
<td>1/0.315mm</td>
<td>+Brown/-White</td>
<td>50 metres</td>
<td>70657206</td>
<td>827-6022</td>
</tr>
<tr>
<td>J</td>
<td>1/0.508mm</td>
<td>+Black/-White</td>
<td>25 metres</td>
<td>70657197</td>
<td>827-5990</td>
</tr>
<tr>
<td>J</td>
<td>1/0.508mm</td>
<td>+Black/-White</td>
<td>50 metres</td>
<td>70657201</td>
<td>827-6003</td>
</tr>
<tr>
<td>K</td>
<td>1/0.508mm</td>
<td>+Green/-White</td>
<td>25 metres</td>
<td>70657203</td>
<td>827-6012</td>
</tr>
<tr>
<td>K</td>
<td>1/0.508mm</td>
<td>+Green/-White</td>
<td>50 metres</td>
<td>70657204</td>
<td>827-6016</td>
</tr>
<tr>
<td>J</td>
<td>7/0.2mm</td>
<td>+Black/-White</td>
<td>25 metres</td>
<td>70657202</td>
<td>827-6006</td>
</tr>
<tr>
<td>K</td>
<td>7/0.2mm</td>
<td>+Green/-White</td>
<td>25 metres</td>
<td>70657207</td>
<td>827-6025</td>
</tr>
<tr>
<td>T</td>
<td>7/0.2mm</td>
<td>+Brown/-White</td>
<td>25 metres</td>
<td>70657209</td>
<td>827-6031</td>
</tr>
<tr>
<td>N</td>
<td>7/0.2mm</td>
<td>+Pink/-White</td>
<td>25 metres</td>
<td>70657210</td>
<td>827-6034</td>
</tr>
</tbody>
</table>
Making your own thermocouples?

L60 Thermocouple & Fine Wire Welder

The Thermocouple Welder is a compact, simple-to-use instrument designed for thermocouple and fine wire welding. It is primarily designed for use by sensor manufacturers to produce commercial grade thermocouple junctions; it is ideal for producing large numbers of exposed junction thermocouples for test and development laboratories. The L60 Thermocouple Welder is ideally suited to transducer and RTD extension lead attachment.

Use of the Thermocouple Welder does not require special skills and most operatives will be capable of producing quality work with little practice. The instrument is supplied with a full range of user accessories including a footswitch.

Suitable for use with wires of up to 1.1mm diameter an argon gas shield facility is included but a satisfactory thermocouple junction is produced without the need for argon. The output energy of the L60 Thermocouple Welder can be varied up to 60 Joules.

- Simple to use Thermocouple Welder
- Designed for the production of commercial grade thermocouple junctions
- Also suitable for other fine wire work
- Front panel or footswitch operation
- Argon gas shield facility

Supplied complete with the following accessories:

- Wire Holding Pliers & Lead
- Safety Glasses
- Magnifying Eyeglass
- Carbon Electrodes
- Spare 2A Fuse
- Argon Hose
- Mains Lead
- Footswitch for greater ease of use

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Allied Code</th>
<th>RS ORDER NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINE WIRE WELDER</td>
<td>70825788</td>
<td>363-0351</td>
</tr>
<tr>
<td>Spare Carbon Electrodes (x5) for 1.1mm 250V Fine Wire Welder</td>
<td>70656473</td>
<td>814-0184</td>
</tr>
</tbody>
</table>

RS183/0816
SPECIFICATIONS

General

Energy Output 0-60 Joules
Welding Capacity Wires up to 1.1mm diameter
Duty Cycle Minimum 5-10 welds/min

MECHANICAL

Physical Dimensions 220mm Wide x 120mm High x 250mm Depth
Weight 4kg

ELECTRICAL

Power Supply 110-120 Vac or 220-250 Vac, 50-60Hz
Power Consumption Max 170VA dropping to 20VA during charging

MAINTENANCE

Apart from keeping the electrode in good order, no other maintenance is required

(Front View)

(Rear View)
Thermocouple Welder Controls

A  Arc  Argon gas and weld current controlled by the “Weld” switch. LED indication
B  Purge  Allows the gas line and electrode shield to be purged of air prior to a new welding period
C  Weld Switch  Initiates a welding operation (in “arc” mode also opens the Argon valve)
D  Argon LED  Indicates when the Argon control valve is open and gas is flowing
E  Wait LED  Glows when weld charge is building
F  Ready LED  “Ready to Weld” indication
G  Power  Rotary control of the capacitor charge voltage
H  Level Selector  Selects the total capacitance available giving the following values with LED indication

"LO" = 0 to 6 Joules
"MED" = 0 to 28 Joules
"HI" = 0 to 64 Joules

I  Electrode Holder  Holds the replaceable carbon electrode which is accessible by removing the outer Argon Shield
J  Red Socket  Output socket for using the pliers supplied
K  Black Socket  Output socket, this provides an additional earth