

## Datasheet

# JIS Miniature Thermocouple Connector In-Line Plugs

Types K, J, T, E, R/S & B  
(JIS Colour Code)



- Range of miniature thermocouple connectors with flat pins to suit thermocouple type
- Ideal for general purpose use
- All contacts are polarised to ensure correct connection
- Connectors will accept thermocouple cable up to 4mm in diameter
- Cable clamp available for securing cable to plugs
- Available in Thermocouple Types K, J, T, E, R/S & B
- For Types K, J, T & E contacts are made from true Thermocouple alloys
- R/S type has compensating copper/copper nickel alloy contacts (for R or S Type Thermocouples)
- B type has compensating copper/copper contacts (for B Type Thermocouples)
- Colour coded in accordance with JIS specification
- Maximum continuous operating temperature 220°C

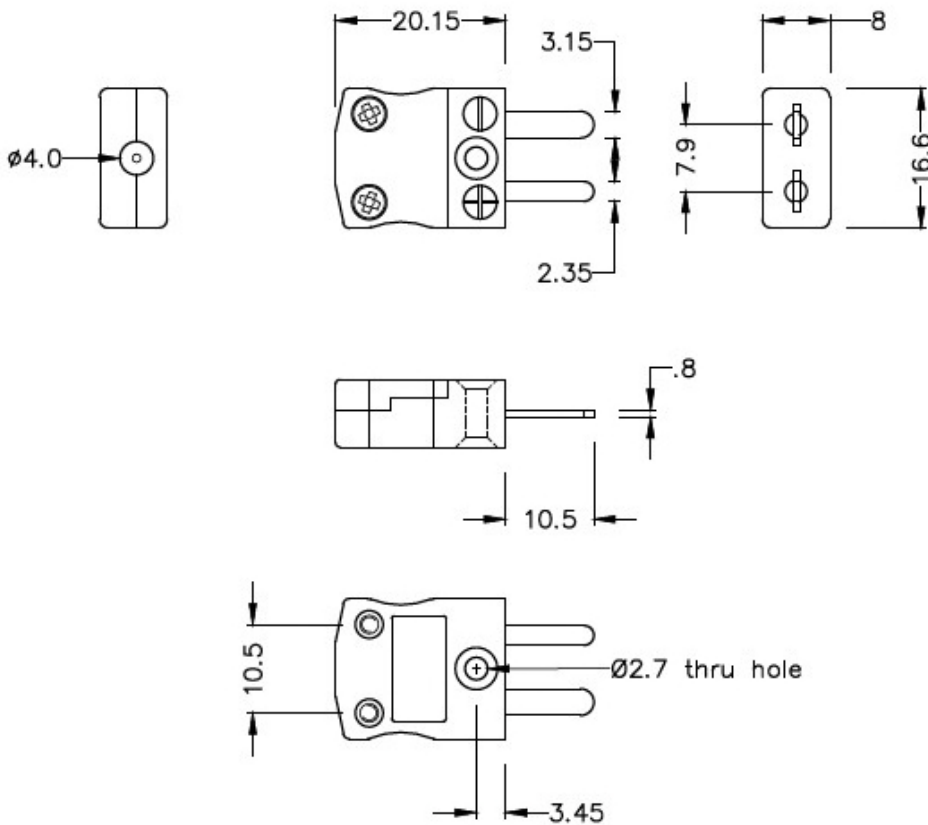
T/C Type	Colour Code (JIS)	+Positive Contact (alloy type)	-Negative Contact (alloy type)	Manufacturing Reference	Allied code	RS order Code
K	Blue	+Nickel Chromium	-Nickel Alloy	JM-K-M	70652311	<b>771-8770</b>
J	Yellow	+Iron	-Copper Nickel	JM-J-M	70652308	<b>771-8761</b>
T	Brown	+Copper	-Copper Nickel	JM-T-M	70652313	<b>771-8777</b>
E	Violet	+Nickel Chromium	-Copper Nickel	JM-E-M	70652310	<b>771-8767</b>
R/S	Black	+Copper	-Copper Alloy	JM-R/S-M	70652312	<b>771-8773</b>
B	Grey	+Copper	-Copper	JM-B-M	70652309	<b>771-8764</b>

## Accessories

- Cable clamp for miniature connectors –  
RS order number **236-4104**  
Allied code 70641746



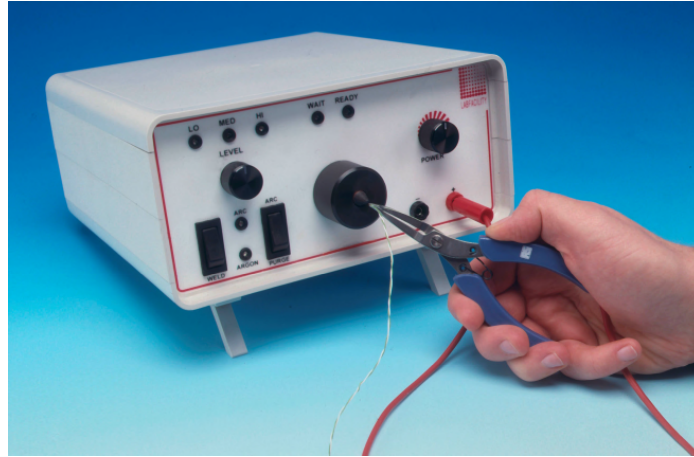
- Rubber grommet for miniature connectors –  
RS order number **666-7365** (25 per pack)  
Allied code 70646835 (25 per pack)



**Miniature in-line Plug**  
(dimensions in mm)

## 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 (See below for range of thermocouple cables)
- 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



Carbon Electrode

## **ORDERING INFORMATION**

**MODEL**  
FINE WIRE WELDER  
Spare Carbon Electrodes (x5) for 1.1mm 250V Fine Wire Welder

Allied Code	RS ORDER NUMBER
70825788	363-0351
70656473	814-0184

**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

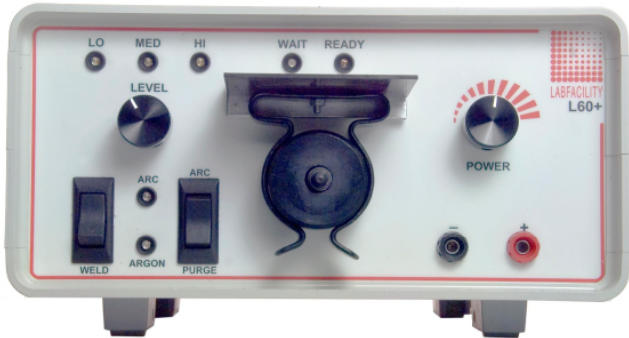
**ELECTRICAL**

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

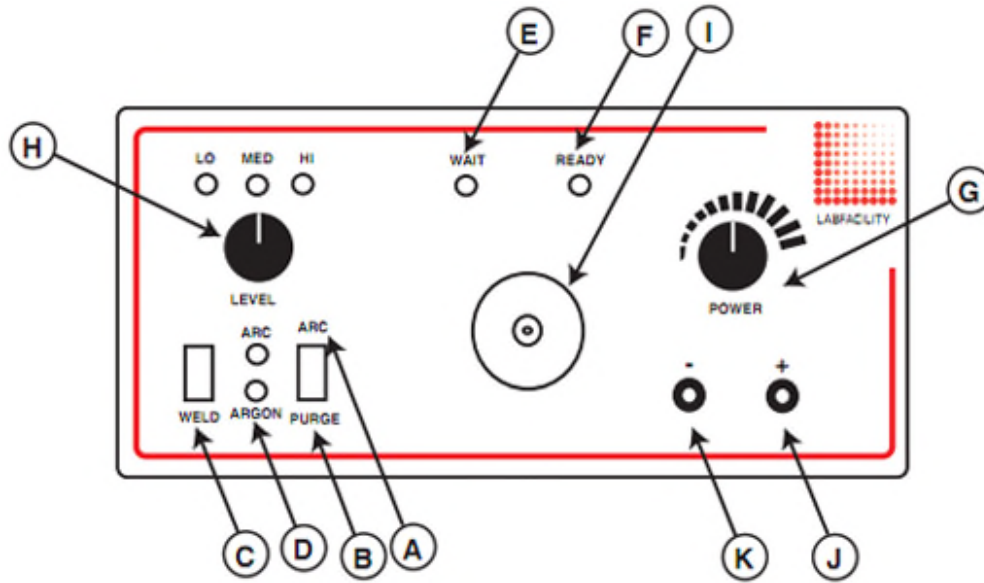
(Front View)



(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