

EUROLEC INSTRUMENTATION LTD

CS650 - TEMPERATURE CALIBRATION SOURCE

OPERATING INSTRUCTIONS

The CS650 provides a positive temperature (+ 30 to + 650°C) calibration source for contact probe thermometers.

The CS650 operates from a mains supply of 220 - 240V AC (110V operation is optional) and requires one 5A /250V fuse. Replace only with the same type and rating, by removing the fuse compartment of the mains socket at the back of the instrument. There is a mains lead supplied with each instrument.

A range of different probe hole dimensions are available in the front and back of the instrument for testing a wide range of probes. The larger probe diameters are at the front and are deeper than the smaller diameter probe holes at the back.

The indicated temperature on the CS650 is for controlling the temperature of the source and should not be used as a temperature reference. For calibrations, a precision thermometer should be used as the reference.

The temperature controller used in the CS650 is a PID controller from Brainchild and an operating manual for this controller is included. This controller has been pre-set for optimum operation over the full temperature range.

WARNING: The surface at the top of the case can get hot, depending on the set temperature. **Take care** touching this surface when the instrument is in operation.

Operation:

Switch the instrument on, by the On/Off switch at the front of the instrument.

The operating temperature of the CS650 is set by pressing the scroll button  (the button on the left hand side) on the temperature controller, until the display shows SP1 then pressing the up  or the down  arrow buttons to increase or decrease the temperature set point.

Place probes under test, and the reference probe, if applicable, into the holes provided at the front or back of the calibration chamber.

Note: The temperature set point should not exceed 650°C.
Allow 30 minutes for the temperature of the calibration chamber to stabilise at the set point, before taking any readings.

If the temperature stability needs to be improved, then press the scroll button until **A – t** appears on the screen. Press and hold the scroll button for at least 3 seconds and the display will begin to flash. This is the controller's auto-tuning procedure and when the display stops flashing then the procedure is complete.

To **reset** the instrument and to revert the display to showing the temperature, press the up ▲ and down ▼ buttons together.

Communication

A 9 pin serial RS232C port is provided for communications. Please refer to the Brainchild C21 User Manual for details.

Warranty

This instrument has been carefully assembled and tested, and is warranted against faulty workmanship and materials for 12 months from the date of purchase.

During the warranty period any defective instrument will be repaired or replaced at the discretion of the manufacturer. This warranty does not cover, damage or failure resulting from misuse or accident.

Modification, adjustment or any alteration with the internal arrangement of the instrument shall absolve the manufacturer from any liability in respect of the instrument.

Any instrument to be repaired should be forwarded to the manufacturer, carriage paid and at the owner's risk. A brief description of the fault should be included.

Eurolec Instrumentation Ltd.
Technology House, Cluan Enda, Dundalk, Co. Louth, Ireland.

Tel: +353 (0) 42 9333423, Fax: +353 (0) 42 9331758

E-mail: eurolec@esatclear.ie

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